91-473

No. ———

IN THE

Supreme Court of the United States

OCTOBER TERM, 1991

GULF STATES UTILITIES COMPANY,
Petitioner,
v.

LOUISIANA PUBLIC SERVICE COMMISSION, *et al.*,
Respondents.

Petition for a Writ of Certiorari to the Supreme Court of the State of Louisiana

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APPENDIX TO PETITION FOR A WRIT OF CERTIORARI

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versus

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SUPREME COURT OF LOUISIANA

Nos. 88 CA 0709
90 CA 0445

GULF STATES UTILITIES COMPANY

versus

LOUISIANA PUBLIC SERVICE COMMISSION

[April 5, 1991]

CALOGERO, Chief Justice

These are consolidated appeals from two district court decisions arising out of a rate case filed on July 25, 1986 with the Louisiana Public Service Commission by Gulf States Utilities Co. Gulf States sought to obtain rate support for River Bend 1, a $4.4 billion, 940 megawatt nuclear plant completed in 1986.[1] Gulf States owns 70 per cent of the plant, reflecting an investment of $3 billion; the remaining 30 per cent is owned by Cajun Electric Power Cooperative. On December 15, 1987, after lengthy hearings, the Commission issued Order No. U-17282-C, in which it disallowed $1.4 billion of the com-

[1] Gulf States originally intended to build two River Bend units, but cancelled the second unit in 1984. The Commission initially disallowed the company's investment in that unit under the "used and useful" test. See Order No. U-17282-C. On remand from the district court, however, it granted a full recovery of the unit's sunk cost over ten years, but without a return on the investment during that period. See Order No. U-17282-D.

pany's investment in River Bend[2] upon a finding of imprudence, granted Gulf States a first year rate increase of $63 million, which represented a 12% return on equity, and adopted the framework of a phase-in plan for the remainder of the prudent portion of the investment. Gulf States sought to enjoin the part of the order limiting it to a first year return on equity of 12%. On February 18, 1988, Judge Brown of the 19th judicial district issued a preliminary injunction granting the company a first year rate increase of $92 million, reflecting a rate of return on equity of 14%. From that decision the Commission and the State through the Attorney General have perfected appeals. Gulf States also appealed the Commission's imprudence disallowance. On

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[2] River Bend capacity is divided between Gulf States' Louisiana and Texas ratepayers. Therefore, although the Commission disallowed $1.4 billion of Gulf States' investment in the unit as imprudent, it is only the Louisiana portion of that amount, or approximately $677 million, which would be excluded from its rate base in this state. Gulf States also applied to the Public Utility Commission of Texas for a rate increase to support the portion of River Bend allocated to its Texas customers. That Commission, after extensive hearings, found that the evidence was inadequate to support a finding of either prudence or imprudence in regard to $1.453 billion of Gulf States' investment in River Bend, and reserved the right to reexamine the prudence of those costs in a subsequent proceeding. Gulf States appealed the order and simultaneously initiated a new proceeding before the Commission on the prudence issue. The Coalition of Cities for Affordable Utility Rates also appealed, and obtained from the trial court a permanent injunction prohibiting the Commission from reexamining that issue. The injunction was upheld by the Supreme Court of Texas in the recent decision of *Coalition of Cities For Affordable Utility Rates v. Public Utility Commission of Texas*, 798 S.W.2d 560 (Tex. 1990). The Court found that by stating that Gulf States had failed to prove the prudence of $1.453 of its River Bend investment, the Commission had effectively disallowed that amount from the rate base, and that the doctrines of res judicata and collateral estoppel precluded the Commission from relitigating the issue. The consolidated administrative appeal of the Commission's order by Gulf States and the Coalition is now pending in the 250th District Court of Travis County, TX.

October 11, 1989, after six weeks of hearings, Judge Landry, sitting as Judge Ad Hoc of the 19th judicial district court, rendered a decision upholding the Commisison's finding of imprudence, but also ordering the implementation of a "rate base exclusion plan" that would allow Gulf States to obtain revenue support for the imprudent part of its investment. From that decision, the Commission, the State, and the utility have appealed.

As will be evident from the lengthy discussion which follows, the issues presented for our determination in these appeals include: (1) whether Gulf States' due process rights were violated by the manner in which the Commission conducted the hearing in this case, and the appropriate standard of review to be applied to Public Service Commission Order No. U-17282-C; (2) whether the Commission was unreasonable or arbitrary in finding that Gulf States' 1979 decision to restart River Bend was imprudent; (3) whether the district court's decision on the merits which ordered the implementation of a "rate base exclusion plan" was a proper exercise of that court's judicial authority; (4) and whether, in the injunction proceeding, the district court acted within its discretion in increasing Gulf States' first year rate of return on equity from 12% to 14%.

As will also be evident from the following discussion, we find that Gulf States' due process rights were not violated, and the appropriate standard of review in this case to be that articulated by this Court in numerous previous rate cases: Commission orders will be upheld unless they are arbitrary, capricious, or not reasonably supported by the evidence. We further find the Commission's disallowance of $1.4 billion of Gulf States' investment in River Bend as imprudent to be reasonably supported by the extensive record compiled in this case. Regarding the district court's implementation of a rate base exclusion plan, we find that order to be a preemp-

tion of the Commission's primary authority to set fair and reasonable rates. Once it had affirmed the Commission's finding of imprudence, it was not within the court's discretionary powers to amelorate the effect of that determination. Finally, we find an injunction action in a rate increase case to be an improper proceeding in which to increase the rate of return on equity granted by the Commission, when the court has not found the lower rate to be confiscatory.

FACTS AND PROCEDURAL HISTORY

River Bend was planned in the early 1970s by Gulf States, a Texas corporation providing electrical service to both Louisiana and Texas residents, businesses, and industrial users. Until that time, the company had relied on gas-fired generators to provide an electric power supply to its customers. The company experienced a need for alternate power sources, however, as a result of a variety of factors, including severe natural gas curtailments, a load growth which had averaged approximately 11% annually for the preceding four decades, and new federal regulations. The decision to build River Bend was predicated on three extensive economic studies commissioned by Gulf States. Those studies, performed by Stone & Webster and Bechtel Corp., examined the total costs of producing energy from various types of generators over the lives of the units, and concluded that the nuclear option was economically preferable to the alternatives. That conclusion was supported by then current industry-wide data, internal studies, and publications of the Nuclear Regulatory Commission. The initial estimate of the cost of River Bend, made in 1971, was $307 million. Gulf States continued to evaluate other power sources as well, and by 1975, included both coal and nuclear fuel in its generation plans. In addition, it had begun acquiring lignite reserves in Texas and Louisiana. During this period, the company also entered

into negotiations with Cajun Electric in an attempt to sell a portion of the proposed River Bend unit.

The decision to build River Bend was affected, however, by a significant drop in load growth on Gulf States' system, resulting in part from the Arab oil embargo and the national recession of 1974-1975. In addition, in January 1977, the Louisiana Public Service Commission rejected the company's application for a $23.8 million rate increase. The decrease in load growth and failure to secure rate relief led Gulf States to suspend the River Bend project in 1977. At that time, construction at the site had not begun, and the utility had invested approximately $350 million in preliminary expenditures. The suspension remained in effect for the next two years.

Gulf States' load growth rebounded, however, to 12% in 1977 and 10% in 1978. Further, in 1978, Congress passed the Fuel Use Act, which mandated that no new gas-fired or oil generating plants could be built, and prohibited the use of natural gas in existing generating plants after 1989. Faced with a need to replace its gas-fired plants and a projected 5.9% compounded growth rate in service demand, Gulf States reevaluated its options. Studies performed by the company indicated a continued advantage for nuclear generation over coal, and in June 1977, Stone & Webster, River Bend's contractor, presented an updated cost estimate for the plant of $1.3 billion.

During the spring of 1978, under a new Board Chairman, Gulf States began a program to determine the most advantageous way to accomplish fuel diversification. Management Analysis Co. completed an evaluation of Stone & Webster's River Bend construction cost estimate, concluding that there was a 90% probability that River Bend would cost $1.7 billion or less, and a 50% probability that the cost would be $1.5 billion. An in-house analysis also calculated the construction cost to be $1.5 billion. In July

1978, Gulf States produced a study concerning the financial impact of various planning alternatives over a ten-year period, which indicated that building River Bend, with a concurrent sale of a portion of the unit, was the best economic alternative.

In August 1978, the Board of Directors met to make a decision on River Bend. During that meeting, the Chairman concluded that the company would not be likely to receive rate relief from either the Louisiana or Texas regulators if River Bend were cancelled, and that the shareholders could not absorb $4 million in sunk and cancellation costs, even with the benefit of a 50% tax write-off. Following a discussion of all of its options, the Board concluded that a sale of the unit was one of its best alternatives. Gulf States' management therefore embarked on a national and international marketing effort to sell River Bend, an effort which was to prove unsuccessful. In the meantime, the company decided to evaluate the possibility of changing contractors for the project, and solicited bids from four major engineering/construction firms. The bids were evaluated by company committees and by two outside firms, Management Analysis Co. and NUTECH. The NUTECH evaluation determined that construction cost estimates were in a range of $1.67 to $1.77 billion, while Management Analysis Co. concluded that there was a 90% probability that the construction cost would be in the range of $1.7 to $1.88 billion. Ultimately Stone & Webster was awarded the contract on a cost-plus basis.

On November 15, 1978, Gulf States filed testimony before the Public Service Commission and presented calculations showing River Bend to be an economical generating alternative to meet the increases in load growth expected during the next decade. The calculations were based on the company's official estimate of the unit's cost, $1.3 billion. In late November, the Nuclear Regulatory Commission published the results of a study of nuclear

and coal costs that indicated some advantage for nuclear units. In December 1978, the Commission granted the company's application for rate relief to support its River Bend construction program, based on Gulf States' projected service demand. A certification order approving the construction had also been sought and received that year from the Texas Public Utility Commission.

In January 1979, Gulf States' Chairman brought the River Bend project before the Board for a final decision. At that time, the company had an informal agreement with Cajun to sell it 30% of the unit. On February 8, 1979, the Gulf States Board met and approved the restart of the River Bend project. Site work resumed at that time, and the first structural concrete was poured in August 1979. On March 28, 1979, shortly after the decision to restart construction was made, but before significant site work had taken place, an extremely serious nuclear accident occurred at the Three Mile Island nuclear plant in Pennsylvania. A company task force evaluated the impact that the accident was likely to have on River Bend, and 5½ weeks later issued a report which concluded that the accident's effect would be minimal because of the dissimilarities between the types of reactors used in the respective plants. In August 1979, Cajun signed a formal agreement to purchase 30% of River Bend. The agreement, however, obligated Gulf States to buy back a decreasing amount of electricity from Cajun's portion for the first 5 years of River Bend's operation. In September 1979, the contractor, Stone & Webster, completed a comprehensive study, and predicted that River Bend would cost a total of $1.7 billion.

River Bend went into commercial operation on June 16, 1986, and on July 25, 1986, Gulf States filed an application with the Public Service Commission requesting a rate increase to recover the Louisiana portion of its $3 billion investment in the $4.4 billion plant. On December 15, 1987, after more than 40 days of hearings before a Hear-

ing Examiner, the Commission issued an order finding that the company's decision to restart the River Bend project in 1979 had been imprudent. Based on its consultants' estimates of the cost of the alternatives that had been available to Gulf States, the Commission disallowed $1.4 billion of the $3 billion investment and excluded the Louisiana share of that amount (approximately $677 million) from the company's Louisiana rate base. Further, the Commission granted a first year rate increase of $63 million, which represented a 12% return on the company's equity, and approved the framework of a phase-in plan for the remaining Louisiana portion of the $1.6 billion investment which had been determined to be prudent.

Pursuant to LSA-R.S. 45:1192, Gulf States sought emergency relief from the order in the 19th judicial district court. On February 18, 1988, Judge William Brown issued an injunction granting the company a first year rate increase of $92 million, representing a 14% return on equity, and implementing a specific phase-in plan for the deferred portion of the prudent River Bend investment. Pursuant to La. Const. art. IV, § 21, that order is being appealed to this Court by the Commission and the Attorney General of Louisiana, who argue that the court erred in increasing the rate of return set by the Commission, and that a preliminary injunction action was not an appropriate proceeding in which to secure such an order.

In addition to seeking emergency injunctive relief, Gulf States appealed the Commission's imprudence disallowance. That appeal was the subject of 6 weeks of hearings before Judge Paul Landry, sitting as Judge Ad Hoc of the 19th judicial district. During that proceeding, Gulf States presented an "inventory plan" for the resolution of the imprudence disallowance. Under the plan, the proportion of the plant's capacity which is equivalent to the $1.4 billion excluded by the Commission from the rate

base would become a deregulated asset. Gulf States would buy, or would sell off-system, energy from this capacity, thereby allowing the utility to obtain revenue support for the imprudent portion of its investment in River Bend. At the conclusion of the hearings, Judge Landry remanded the matter to the Commission for consideration of the new evidence adduced on appeal.

After further hearings, the Commission issued Order No. U-17282-D, reaffirming its imprudence disallowance, but also proposing a settlement offer. The offer included a "rate base exclusion plan," somewhat similar to the "inventory plan" proposed by Gulf States. The Commission's plan would guarantee the purchase of energy by Louisiana ratepayers from the excluded portion of the plant at a price of 4.6 cents per kilowatt hour. The offer also required the company to share with its ratepayers any profits earned on off-system sales of energy from the excluded portion of the plant or a sale of the plant itself, and to accept a rate of return of 12.75%. Finally, the offer provided that both parties would drop their respective appeals. The Commission's order specified that if Gulf States rejected the rate base exclusion plan, the findings and conclusions of its previous order, No. U-17282-C, were to be reinstated. The plan was rejected by Gulf States, and the case returned to the district court for briefing and argument. On October 11, 1989, Judge Landry affirmed the Commission's findings of imprudence, but also ordered the implementation of the rate base exclusion plan proposed earlier by the Commission. As noted above, Gulf States, the Commission, and the Attorney General have appealed that decision. Gulf States seeks a reversal of the Commission's finding, affirmed by the district court, that its 1979 decision to restart River Bend was imprudent. Both the Commission and Attorney General appeal that part of the court's order implementing the rate base exclusion plan. In addition, the Attorney General contends that the disallowance for the company's

imprudence should have been even greater than that imposed by the Commission.

Because the issues raised by the appeals of the two district court decisions are distinguishable, we will address them separately, in the following order: No. 90-CA-0445: I. Standard of Review and Due Process (page 12a); II. Prudence (page 26a); III. Rate Base Exclusion Plan (page 52a); and No. 88-CA-0709: IV. Rate of Return on Equity (page 61a).

90-CA-0445

I. STANDARD OF REVIEW AND DUE PROCESS

The standard of judicial review of rate-making determinations by the Public Service Commission has been described by this Court on numerous occasions. We have noted that:

> While we thus have the power and it is undoubtedly our duty to set aside the rulings of the Commission where we believe them to be clearly wrong on the facts and/or the law, we nevertheless should accord great weight to the rulings of the Commission and should not overturn them in the absence of a clear showing of error. Courts should act slowly in substituting their own views and discretion for those of a body peculiarly constituted to act intelligently in such cases and primarily charged with doing so.

Southern Bell Telephone & Telegraph Co. v. Louisiana Public Serv. Comm'n, 239 La. 175, 118 So.2d 372, 378 (1960). We have also said that the Commission's orders are presumed valid, *Gulf States Utilities Co. v. Louisiana Public Serv. Comm'n*, 364 So.2d 1126 (La. 1978), and are not to be overturned absent a showing of arbitrariness, capriciousness, or abuse of authority by the Commission. *Central La. Elect. Co. v. Louisiana Public Serv. Comm'n*, 508 So.2d 1361 (La. 1987); *South Central Bell Telephone v. Louisiana Public Serv. Comm'n*, 352 So.2d 964 (La.

1977). Finally, this Court has found that a decision of the Commission will not be overturned absent a finding that it is clearly erroneous or is unsupported by the record. *Central La. Electr. Co. v. Louisiana Public Serv. Comm'n*, 437 So.2d 278 (La. 1983); *White v. Louisiana Public Serv. Comm'n*, 259 La. 363, 250 So.2d 368 (1971).

Gulf States, however, contends that the traditional standard of review applicable to appeals from Commission rate orders is not appropriate in this case. The company argues that the procedures employed by the Commission deprived Gulf States of its due process rights to a full and fair hearing and a decision based upon the evidence adduced at the hearing. Specifically, the company avers that the Commissioners did not hear any of the testimony or read any of the transcripts of the proceedings, and that the Hearing Examiner who did hear all of the testimony did not prepare any findings or conclusions which could have formed the basis of an independent, unbiased order. The company further maintains that the Commission made no findings at the time the order was issued, but rather, 42 days later, issued a "Majority Opinion" authorized by the Commission's counsel and consultants who had acted as Gulf States' adversaries during the hearings. The company also contends that the Commission's counsel and consultant witnesses inappropriately evaluated the credibility of witnesses and evidence in both the Majority Opinion and the Report of Special Counsel. Finally, Gulf States alleges that the Commission's consultants were unqualified to give opinions on the varied subjects on which they testified, ignored or were ignorant of evidence favorable to Gulf States, and employed computerized analyses that were susceptible to manipulation.

Gulf States concludes that as a result of these procedural deficiencies, the Commission Order is not entitled to a presumption of validity, or to the deferential standard of review traditionally accorded its decisions. The

utility argues that the correct standard of review is that found in LSA-R.S, 45:1192 and in the Louisiana Administrative Procedure Act, LSA-R.S 49:964. The former provides that a court "may affirm . . . change, modify, alter or set aside, as justice may require" an order of the Commission. The latter states that the court may reverse or modify an order if, among other grounds, the decision is "made upon unlawful procedure."

The Commission is constitutionally required to "adopt and enforce reasonable rules, regulations, and procedures necessary for the discharge of its duties." La. Const. art. 4, § 21(B). Gulf States' argument that the Commission's order at issue was the result of unreasonable or "unlawful" procedure rests partly on the contention that the order deprives its shareholders of a property interest in violation of the Fifth and Fourteenth Amendments. The company maintains that a prudence inquiry involves substantial investor property rights, and that a finding of imprudence is tantamount to taking a portion of the plant for public purpose, without compensating the company or its investors. The existence of such a constitutionally protectable property interest triggers a substantive right of due process, which must provide the person whose interests are at stake an effective, efficient, and fair process. *Goldberg v. Kelly*, 397 U.S. 254 (1970). The greater the substantive rights involved, the more closely the hearings must resemble a trial.

Gulf States also argues that because a prudence determination necessarily entails the application of the "reasonable man" standard to a discrete investment decision in the past, requiring the weighing of relevant facts and circumstances, it most closely resembles a determination of negligence in a tort suit. The inquiry concerns 'adjudicative facts," questions "of who did what, where, when, how, why, with what motive or intent," which should ordinarily not be decided without providing the parties an opportunity for trial. 1 K. Davis, *Administrative*

Law Treatise, § 7.02 at 413 (1958). Thus in a prudence case, the utility contends, ratemaking loses its legislative nature and becomes a judicial function. In administrative law terms, the Commission's order is one of particular, rather than general applicability, and thus constitutes adjudication, rather than rulemaking. Gulf States asserts that it is therefore entitled to the trial-like process required in an adjudicative proceeding, citing *Londoner v. Denver*, 210 U.S. 373 (1908) and *Bi-Metallic Co. v. Colorado*, 239 U.S. 441 (1915).

We first address the argument that under administrative law principles, Gulf States was entitled to a hearing closely resembling a trial. It is true, of course, that ratemaking is often particular in its application, in that the regulatory authority must determine what rates a specific utility may charge, based on factors which are unique to that utility. However, the predominant weight of opinion views the ratemaking process as legislative, because it looks to the future and changes existing conditions by making a new rule that prescribes future patterns of conduct. The theory that rulemaking may be distinguished from adjudication on the basis of its future effect was first articulated by Justice Holmes in *Prentis v. Atlantic Coast Line Co.*, 211 U.S. 210, 226-27 (1908):

> [The proper characterization of an agency's actions] depends not upon the character of the body, but upon the character of the proceedings. . . . And it does not matter what inquiries may have been made as a preliminary to the legislative act. Most legislation is preceded by hearings and investigations. But the effect of the inquiry, and of the decision upon it, is determined by the nature of the act to which the inquiry and decision lead up. . . . The nature of the final act determines the nature of the previous inquiry. As the judge is bound to declare the law he must know or discover the facts that establish the law. So when the final act is legislative the decision

> which induces it cannot be judicial in the practical sense, although the questions considered might be the same that would arise in the trial of a case.

The U.S. Supreme Court has reaffirmed the *Prentis* mode of analysis, see *District of Columbia Court of Appeals v. Feldman*, 460 U.S. 462, 476-79 (1983), and its conclusion that ratemaking is essentially a legislative function. See *United States v. Jones*, 336 U.S. 641, 652 (1949); *Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581, 589 (1945). In the recent case of *New Orleans Public Service v. New Orleans*, 109 S. Ct. 2506 (1989), the Court again reaffirmed the legislative nature of ratemaking. The Court found that the proceedings at issue, in which the New Orleans City Council determined that certain costs incurred by NOPSI in relation to Grand Gulf I nuclear plant could not be reimbursed through a rate increase, "were not judicial in nature." *Id.* at 2519. See also *American Telephone & Telegraph Co. v. Federal Communications Comm'n*, 602 F.2d 401, 410 n.48 (D.C. Cir. 1979); *Wilson & Co. v. United States*, 335 F.2d 788, 797 (7th Cir. 1964).

This Court has also confirmed the legislative nature of ratemaking, even in cases involving the rates of particular utilities. In the early case of *McNeely v. Town of Vidalia*, 157 La. 338, 102 So. 422 (1924), the Court reasoned that

> since public utilities are for all practical purposes public necessities, and virtual monopolies, it follows that the rates fixed for such necessities are in effect a *tax* upon the public for such public service. . . . The fixing of such rates is therefore essentially a *legislative* function . . . ."

Id. at 423 (emphasis in original). That conclusion has often been reiterated by the Court. See, *e.g.*, *Louisiana Power & Light Co. v. Louisiana Public Service Comm'n*, 523 So.2d 850 (La. 1988); *South Central Bell Telephone Co. v. Louisiana Public Service Comm'n*, 373 So.2d 479

(La. 1979); *South Central Bell Telephone Co. v. Louisiana Public Service Comm'n*, 352 So.2d 964 (La. 1977).

Despite the legislative nature of ratemaking, however, it is also true that a prudence inquiry involves "adjudicative facts," which apply to and affect Gulf States specifically. The nature of the inquiry thus makes it appropriate for the Commission to hold an evidentiary hearing before making a determination of such significance to the company and its investors. *See Patagonia Corp. v. Board of Governors of the Federal Reserve System*, 517 F.2d 803 (9th Cir. 1975); *Appalachian Power Co. v. EPA*, 477 F.2d 495 (4th Cir. 1973); Schwartz, *Administrative Law* 204. Further, we agree with the company's assertion that the property interest at stake is one to which due process concerns protected by the federal and state constitutions attach, see *Duquesne Light Co. v. Barasch*, 109 S.Ct. 609 (1989); *South Central Bell Telephone Co. v. Louisiana Public Service Comm'n*, 373 So.2d 478 (La. 1979), and that the company is entitled to a hearing before being deprived of that interest. The issue thus becomes whether the kind of hearing provided by the Commission in this case violated Gulf States' due process rights. The U.S. Supreme Court has established a three part balancing test to determine what safeguards are necessary when a constitutionally protectable liberty or property interest is at stake. A reviewing court must weigh the interests of the affected individual, the risk of erroneous decision making based on the procedures used, and the government's interest in efficient resolution of the issues. *Mathews v. Eldridge*, 424 U.S. 319, 96 S. Ct. 893, 47 L. Ed.2d 18 (1976).

In this instance, in accordance with the Commission's normal procedure in rate cases, hearings were conducted before a Hearing Examiner rather than the Commission members themselves, although Commissioner Louis Lambert also had himself appointed as an Examiner and, along with the administrative aides of other Commission-

ers, attended many hearing sessions. The Commission engaged two firms of attorneys to represent it at the hearings, and later hired a third firm as lead counsel. It also employed as experts a utility consulting firm, a nuclear specialist, and an engineering firm with extensive experience in nuclear prudence cases. During 40 days of hearings, approximately 53 witnesses were called and cross-examined concerning their live as well as prefiled depositions and statements. Several thousand pages of transcript were compiled and several hundred exhibits entered into evidence. At the end of the hearings a Report of Special Counsel, principally written by the Commission's consultants and special counsel, was presented to the Commission. The Report contained summaries of witnesses' testimony and recommendations as to the disposition of the prudence issue. Following submission of the Report, Gulf States sought and was granted the opportunity to argue the matter, and a full day hearing was conducted before the Commission. Finally, 42 days after the Commission adopted Order No. U-17272-C, it issued a Majority Opinion, the content of which relied heavily on the Report of Special Counsel.

Gulf States contends that this process was fatally flawed because the Commissioners did not hear the testimony, either in person or through a report of the Hearing Examiner, and because the decision process was delegated to adversarial witnesses who prepared the Commission's Order based on their own evaluations of opposing witnesses' testimony. However, as the district court noted, the cases cited by the company in support of its contention that the procedure employed by the Commission was not sufficiently "trial-like" are distinguishable from the present case.

In *Ohio Bell Telegraph Co. v. Public Utilities Comm'n*, 301 U.S. 292 (1937), on which Gulf States heavily relies, the Commission was called upon to value a telephone company's property in order to decide what amount to include

in the company's rate base. Despite the submission of extensive evidence concerning the value of the property, the Commission determined its value by reference to certain journals and tax lists which it did not identify and which were not introduced into evidence. When the company sought the disclosure of the documents relied upon by the Commission, and an opportunity to rebut them, it was refused. The Court held, therefore, that the proceeding did not provide the fair hearing essential to due process.

In *Morgan v. United States*, 298 U.S. 468 (1936), unlike the case at issue, the Secretary was required by statute to hold a "full hearing" before issuing rate orders. Although hearings were held before an examiner, the Secretary issued an order without having heard or read any of the evidence, and without having considered the briefs submitted by the plaintiff. The Court held that if "the one who determines the facts which underlie the order has not considered evidence or argument, it is obvious that the hearing [mandated by statute] has not been given." *Id.* at 480-81.

In *Goldberg v. Kelly*, 397 U.S. 254 (1970), the issue before the Court was whether a state could terminate welfare payments without affording the recipient an opportunity for an evidentiary hearing prior to termination. The Court concluded that the stakes for the recipient were too high and the possibility for error too great to allow termination without giving the recipient a chance to be fully informed of the case against him and the opportunity to contest its basis and to produce evidence in rebuttal.

In *Patagonia Corp. v. Board of Governors of the Federal Reserve System*, 517 F.2d 803 (9th Cir. 1975), the court found that when there are contested questions of adjudicative fact, the party which may be adversely affected is normally granted a hearing in which that party

has "the opportunity to confront witnesses and to hear and contest the evidence against him." *Id.* at 816.

In *KFC National Management Corp. v. N.L.R.B.*, 497 F.2d 298 (2d Cir. 1974), the N.L.R.B. regional director had made an ex parte investigation into the plaintiff's allegation of an unfair labor practice, and had concluded that it had no merit. When the plaintiff then petitioned the Board for review, its petition was denied by the vote of a three member panel, two members of which had never considered the case but had given their assistants general authorization to vote in their places. The Second Circuit held that this complete delegation of the Board's statutory duty to decide the case constituted a "prima facie" demonstration of impropriety and allowed the court to inquire into the administrative process to insure that the decision making was informed, unbiased, and personal.

In *Carolina Power & Light Co. v. FERC*, 716 F.2d 52 (D.C. Cir. 1983), the Commission had issued an order refusing to allow the utility to pass along permanent disposal costs of spent nuclear fuel on the basis that reprocessing was a reasonably forseeable possibility. When the company petitioned for a rehearing to rebut the Commission's finding concerning the availabilty of reprocessing, FERC denied the application, stating only that the petition presented no matters of law or fact which it had not previously considered. The court held that the Commission had failed to set forth a clear presentation of its reasoning, making it impossible for the court to intelligently perform its reviewing function.

In this case, Gulf States clearly was provided an evidentiary hearing in which it had a full opportunity to learn the extent of the case against it and the basis for that case, to present witnesses and introduce documents in support of its position, and to cross-examine Commission witnesses. Nor was there an abdication by the Com-

mission of its decision-making duties of the sort condemned by the court in *KFC National Management Corp. v. N.L.R.B., supra.* Although the Commissioners did not personally hear all of the testimony, Commissioner Louis Lambert and representatives of the other Commissioners frequently attended the hearings. In addition, the Commissioners were provided with summaries of testimony which had been submitted previously to Gulf States for its review and approval of content. The company made no objection at that time to the use or the accuracy of the summaries. Further, although Gulf States now complains that the Commissioners neither heard all of the testimony nor read the transcript, it has not, in brief or oral argument, alleged to the district court or to this Court that the summaries were biased or misleading. Nor surely, given the volume of prefiled testimony, exhibits, and hearing transcript (the transcript alone numbered over 7,000 pages), could the company assert that the summaries were not helpful to the Commissioners in comprehending the complex, technical issues involved in the prudence inquiry.

Commission members also granted private audiences to company representatives, meetings which would clearly have been in appropriate in an adjudicative proceeding. Finally, in a departure from its usual procedure, following the submission of the report of special counsel, Gulf States was allowed to file exceptions to the report, and was granted a full day hearing before the full Commission to argue its case.

As Gulf States acknowledges, the Commission is permitted to delegate the hearing of oral testimony to an examiner, and the "sifting and analyzing" of the evidence to "competent subordinates." *Morgan v. United States,* 298 U.S. 468 (1936). The company complains, however, that the Hearing Examiner, the one person who did hear all of the evidence in the case, failed to prepare a report on

his findings of fact.[3] The Supreme Court has held that such a report is not essential to the validity of a hearing. *Id.* at 478; see also *N.L.R.B. v. Mackay Co.*, 304 U.S. 333 (1938). Gulf States also contends that it was denied due process on the basis that the Commission's Majority Opinion, which was not issued until 42 days after the Order, was authored by the Commission's consultants and counsel who had acted as the company's adversaries during the hearings. The Commission is statutorily permitted to retain special counsel, engineers, consultants, etc. to assist its economics and rate analysis division in "evaluating, reviewing, and representing the commission in matters affecting services and rates charged by public utilities to Louisiana consumers or the judicial review thereof." LSA-R.S. 45:1163.3. The company's contention that a violation of due process occurs when such staff members take an adversarial stance in hearings and then advise the Commission regarding its decision has been rejected by the federal courts.

In *Wilson & Co. v. United States*, 335 F.2d 788, 796 (7th Cir. 1964), the court stated that

> We hold that it was proper for members of the Commission's Common Carrier Bureau who were counsel of record in the hearing before the Commission to participate in the decisional process that led to the orders under review; and that this conduct did not violate section 3(a) of the Administrative Procedure Act. . . . the Commission's own rules, as well as constitutional due process.

In *American Telephone & Telegraph*, 449 F.2d 439 (D.C. Cir. 1979), the court observed that

> The case law generally rejects the proposition that the combination of judicial and adversary functions

[3] The procedure employed in this case, in which a Hearing Examiner presided over the proceedings and compiled the evidence, but did not issue a preliminary decision, is typical of the procedure used by the Commission in all major rate cases, including the last six rate cases filed by Gulf States.

is a denial of due process. This seems to be particularly true where the proceeding is rule making or rate making.

The Administrative Procedure Act is consistent with the jurisprudence on this issue. The Act specifically exempts proceedings involving rates of public utilities from the separation of functions requirement imposed on adjudicatory proceedings. See 5 U.S.C. § 554(d); see also *Seacoast Anti-Pollution League v. Costle*, 572 F.2d 872 (1st Cir. 1978) ("The decision ultimately reached is no less the Administrators (sic) simply because agency experts helped him to reach it."); 2 K. Davis, *Administrative Law Treatise* 84 (1958) ("The strength [of the administrative process] lies in staff work organized in such a way that the appropriate specialization is brought to bear upon each aspect of a single decision, the synthesis being provided by the men at the top.").

Further, it is standard agency practice for staff members to prepare the opinions adopted by the agency. While this practice has been the subject of criticism, it has been defended as necessitated by heavy administrative work loads. As one often cited scholar has observed,

> The objection to the separation of deciding from opinion writing may be unanswerable except in terms of inevitability. No one has yet conceived a system which will dispose of the quantity of adjudication, without an undue diversity of results, and will at the same time permit the deciding officers to write their own opinions. . . . The best solution of the Board's problem is probably the one the Board has worked out—the use of assistants.

K. Davis, Administrative Law 239 (1972).

Nor has Gulf States made a persuasive showing that it has been disadvantaged because the Commission's Majority Opinion was not issued simultaneously with its Order. The purpose underlying the requirement that an

agency must provide a statement of findings as to disputed issues and reasons for its determination is "to enable a reviewing court to determine with some measure of confidence whether or not the ratemaking authority, which still remains in the Commission, has been exercised in a manner which is not arbitrary, capricious or unreasonable." *Central Louisiana Electric Co. v. Louisiana Public Service Comm'n*, 437 So.2d 278, 279 (La. 1983).

The case cited by Gulf States to support its contention that the combination of prosecutorial and fact-finding functions in one person violates due process, *Allen v. Louisiana State Board of Dentistry*, 543 So.2d 908 (La. 1989), is not comparable to a ratemaking proceeding. *Allen* involved the adjudication provisions of the Louisiana Administrative Procedure Act, not applicable here,[4] and concerned a quasi-criminal prosecution which resulted in the plaintiff's suspension from the practice of dentistry. Further, the plaintiff was given no notice of the ex parte participation of the prosecutor in the drafting of the Board's formal findings of fact and conclusions, and no opportunity to object to the findings and conclusions prior to their adoption by the Board. The Court also found that the Board adopted the prosecutor's draft verbatim, after a minimal review. In contrast, the Commission's Majority Opinion in the present case was not the "secret product of an advocate," as the court found in *Allen*. Gulf States had full knowledge of the participation of counsel and consultants in the drafting of the Special Report of Counsel, and was granted a full day of hearing to rebut its findings and conclusions before the Commission issued its order.

The U.S. Supreme Court set the permissible limits of judicial review of adminstrative decision making in the four *Morgan* cases. In the second of those cases, *Morgan*

[4] See *Louisiana Consumers League, Inc. v. Louisiana Public Service Comm'n*, 351 So.2d 128 (1977).

v. United States, 304 U.S. 1, 18 (1938), the Court held that it was "not the function of the court to probe the mental processes of the Secretary" of Agriculture. *Id.* at 18. In the fourth case, *United States v. Morgan*, 313 U.S. 409 (1940), the Court compared the administrative process to a judicial proceeding, and held that inquiry into the process by which either the judge or administrator reached his conclusions would be destructive of the decision maker's responsibility.

The Second Circuit Court of Appeals has observed that

> what emerges from the *Morgan* quartet is the principle that those legally responsible for a decision must in fact make it, but that their method of doing so—their thought processes, their reliance on their staffs—is largely beyond judicial scrutiny.

KFC National Management Corp. v. N.L.R.B., 497 F.2d 298, 304 (2d Cir. 1974); see also *N.L.R.B. v. Baldwin Locomotive Works*, 128 F.2d 39, 47 (3d Cir. 1942) ("[W]e may not tell the Board that it must 'hear' in some one particular manner so long as it does 'hear,' i.e., consider the evidence and argument.").

We find that the Commissioners did indeed "hear" and decide this case in accordance with their constitutional and statutory duty and with the due process requirements of an administrative hearing. Judicial inquiry into the methods by which they arrived at a decision is therefore at an end.

Having concluded that Gulf States' due process rights were not violated by the Commission's procedures, we turn to the standard of review to be applied to the issues remaining before us. The district court, noting that this Court has described the standard in a variety of ways, relied upon the standard articulated in the recent case of *CTS Enterprises v. Louisiana Public Service Comm'n*, 540 So.2d 275 (La. 1989): "a court will not upset the

agency's finding unless it is based on an error of law or is one which the Commission could not have found reasonably from the evidence." *Id.* at 278. Although the Court in that case specified that the quoted standard applied in a common carrier setting, it is similar to our previous descriptions, cited above, of the standard to be applied in ratemaking cases. See, *e.g.*, *Louisiana Power & Light v. Louisiana Public Service Comm'n*, 523 So.2d 850 (La. 1980) (the inquiry is "whether the commission acted unreasonably or arbitrarily in setting rates for the utility"); *Central Louisiana Electric Co. v. Louisiana Public Service Comm'n*, 437 So.2d 278 (La. 1983) (order will be upheld unless shown to be "arbitrary, capricious, abusive of its authority, clearly erroneous or unsupported by evidence").

We therefore apply the standard that Commission orders are to be upheld unless they are arbitrarily or capriciously rendered, or are not reasonably supported by the evidence.

II. PRUDENCE

Article 4, § 21 of the Louisiana Constitution grants the Public Service Commission the authority to regulate "all common carriers and public utilities" in the state. In the exercise of this authority, the Commission is charged with setting reasonable and just rules, regulations and orders. LSA-R.S. 45:1167. In order to carry out its constitutional and legislative mandates, the Commission is required to determine how much of a utility company's investment should be included in its rate base, ultimately to be borne by the ratepayers. In doing so, it must balance the interest of the ratepayers in the lowest possible rates, against that of the utility and its investors, who understandably desire the highest possible rates. *Morehouse Gas Co. v. Louisiana Public Service Comm'n*, 162 So.2d 334 (La. 1964). Although there is no single formulation sufficient to express constitutional, statutory,

or judicially derived standards for determining how much of a utility's investment in a particular plant should be included within its rate base, see *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), one of the principles used by ratemaking bodies and courts to make such a determination is the prudent investment standard.[5] That standard "essentially applies an analog of the common law negligence standard for determining whether to exclude value from rate base." *Appeal of Conservation Law Foundation*, 507 A.2d 652, 673 (N.H. 1986). That is, the utility must demonstrate that it "went through a reasonable decision making process to arrive at a course of action and, given the facts as they were or should have been known at the time, responded in a reasonable manner." *Re Cambridge Electric Light Co.*, 86 P.U.R. 4th 574 (Mass. D.P.U. 1983).[6]

Further, under the prudent investment rule, a utility is compensated for all prudent investments at their cost

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[5] The prudent investment standard was articulated in Justice Brandeis' seminal dissent in *Southwestern Bell Telephone Co. v. Public Service Comm'n*, 262 U.S. 276 (1923). Although the standard has been used by regulators to a much greater extent in the years following 1974, particularly in evaluating nuclear power plants, the concept has been long established in Louisiana jurisprudence, see *Morehouse National Gas Co. v. Louisiana Public Serv. Comm'n*, 162 So.2d 334 (La. 1964), as well as in other jurisdictions. See, *e.g.*, *In Re Consolidated Edison Co.*, 73 P.U.R. 3d 417 (N.Y. Pub. Serv. Comm'n 1968); *Waukesha Gas & Elec. Co. v. Railroad Comm'n*, 181 Wis. 281, 194 N.W. 846 (1923).

[6] The principle of prudence has developed in part to counterbalance the monopoly power of public utilities. As one Public Service Commission has observed: "If a competitive enterprise tried to impose on its customers costs from imprudent actions, the customers could take their business to a more efficient provider. A utility's ratepayers have no such choice. A utility's motivation to act prudently arises from the prospect that imprudent costs may be disallowed." *In Re Long Island Lighting Co.*, 71 P.U.R. 4th 262 (N.Y. Pub. Serv. Comm'n, 1985); see also Smartt, *The Prudent Investment Test Examined*, Pub. Util. Fort., July 25, 1985, at 5.

when made, irrespective of whether they are deemed necessary or beneficial in hindsight. *Duquesne Light Co. v. Barasch*, 109 S. Ct. 609 (1989). That is, the focus in a prudence inquiry is not whether a decision produced a favorable or unfavorable result, but rather, whether the process leading to the decision was a logical one, and whether the utility company reasonably relied on information and planning techniques known or knowable at the time. *Metzenbaum v. Columbia Gas Transmission Corp.*, Opinion No. 25, 4 FERC ¶61,277. Although a prudence review is necessarily retrospective in that it involves an examination of past circumstances, past information available, and past decisions, these factors may not be evaluated in light of subsequent knowledge. Finally, the inquiry encompasses a public utility's *continuation* of an investment as well as its decision to enter into that investment, see *Re Central Vermont Public Service Corp.*, 83 P.U.R. 4th 532 (Vt. Pub. Serv. Bd. 1987), and requires the utility to respond prudently to changing circumstances or new challenges that arise as a project progresses. *In Re Long Island Lighting Co.*, 71 P.U.R. 4th 262 (N.Y. Pub. Serv. Comm'n, 1985).

Burden of Proof

Capital and other expenditures reflected in utilities' pro forma requests for rate increases are generally accepted by the Commission as appropriate and necessary and therefore recoverable, expenses. In that sense, a utility's investments are presumed to be prudent and allowable. When, however, the Commission raises serious doubt about the prudence of a particular investment, a searching inquiry becomes necessary, and at that point, the burden shifts to the utility to prove that the expenditure was in fact necessary and appropriate, or resulted in no additional costs. See *Union Electric Co.*, 40 F.E.R.C ¶61,046 (FERC 1987); *Long Island Lighting Co. v. Public Serv. Comm'n of New York*, 523 N.Y.S.2d 615 (A.D.

3d Dept. 1987); *Re Central Vermont Pub. Serv. Comm'n Corp.*, 83 P.U.R. 4th 532 (Vt. P.S.B. 1987).

A. Public Service Commission's Position On Prudence

1. *Load Forecasting and its Bearings on Prudence*

In order to determine whether Gulf States' decision to restart River Bend in 1979 was reasonable, given the analytical tools and information available at the time, Kennedy & Associates, outside consultants employed by the Commission, performed an analysis of the planning process which led to the decision. Because a major thrust of Gulf States' argument is that at the time of the decision it was faced with an overwhelming need for new generation sources, Stephen Baron of Kennedy & Associates first examined the company's load forecasting techniques to determine whether its forecasts, which were clearly too high in retrospect, were reasonable when made. He concluded that the techniques were inadequate, and led Gulf States to overestimate its need for generating capacity. More specifically, he found that the company's forecasting methods, which had produced consistently inaccurate load growth estimates even in one year forecasts, failed to adequately reflect the impact of price changes on the use of electricity. At a time when most utilities were using more sophisticated econometric models to measure the impact of economic factors on demand, Gulf States continued to rely on its traditional trending analyses, which were based on prior demand, and on interviews with large industrial customers.

In the summer of 1978, the company prepared a special peak demand forecast that assumed a peak annual demand growth of approximately 5.9%. However, the forecast ran only until 1984, a year prior to the projected commercial operation of River Bend. Estimates for subsequent years were projected by calculating the growth

rate for the last years of the six year period and assuming that that rate would continue. According to Baron, this forecasting technique ignored price elasticity effects and made the unreasonable assumption that growth from existing customers would continue indefinitely. The Commission notes that the significance of price elasticity effects should have been apparent to the company because a corporate model run by Gulf States in 1979 predicted that from 1978 on, electricity prices would rise 5.99% annually, an increase substantially greater than the 1.5% rate of increase historically experienced by the company. The Commission also maintains that the inadequacy of the company's load growth forecasting techniques was acknowledged by the former president of Gulf States, Norman Lee, who testified that a consultant was brought in on an unofficial basis in 1978 "to teach us how to do it." Further, in 1979, a specially created company task force reported that Gulf States was the only utility studied which relied on trending and judgmental techniques to forecast load, and recommended a complete reevaluation of its forecasting process.

In addition, the Commission notes that many of the events relied upon by Gulf States to explain why it was facing an overwhelming and urgent need for greatly expanded generation at the time of the restart decision had occurred prior to the decision to suspend the project in 1977. Further, it strenuously argues that the company's contention that River Bend was critical to its ability to meet future service demand is contradicted by Gulf States' decision in August 1978 to sell the unit. At the time of that decision, the company was aware of the provisions of the Industrial Fuel Use Act, and of the unexpected jump in its load growth in 1977 and 1978. Yet, the Commission emphasizes, Gulf States undertook an extensive national and international marketing effort to sell River Bend, an effort which indicated that the company

believed that it could better meet its load growth with other alternatives.

2. *Generation Alternatives: Gulf States' Economic Studies*

The consultants also reviewed Gulf States' analysis of alternatives to River Bend at the time of the restart decision. They found that virtually no analysis was made of the economic consequences of the options available in 1979, particularly in comparison to the thorough economic studies performed or commissioned by the company prior to the original decision to build River Bend. The earlier studies had compared the costs of the various alternatives over the life of the plants, including capital, operations, and fuel costs, and had concluded that the total cost of nuclear energy would be less than either coal or oil. In contrast, the consultants found that Gulf States performed no site-specific economic studies after 1974. The Commission argues that the major studies relied upon by the company are of construction costs, rather than of the cost of producing electricity over the life of River Bend compared to other generating alternatives.

The Commission dismisses studies conducted in 1976, 1977, and 1978 alleged by Gulf States to have "reaffirmed that the nuclear option was the most economic." It notes that the 1976 study consists of four pages, two of which contain computations, and the other two of which chart the results of those computations. The Commission argues that the study does not relate specifically to River Bend, and uses a nuclear capital cost of $858 per kilowatt, which implies that a unit the size of River Bend could be built for $806 million—more than $100 million less than the company's estimate for River Bend in September 1975, and nearly $1 billion less than its estimated cost in late 1978. The Commission describes the 1977 study as consisting of one page containing a list of numbers presumably designed to show mills per kilowatt hour for

River Bend and for the Nelson coal units. It asserts that Gulf States has never provided a basis for determining the assumptions used to develop those numbers. The Commission further contends that the 1978 study, termed the "Restart Study" by Gulf States, was not an economic study, but rather an analysis of the financial impact of various planning alternatives. It argues that because the study covered only a ten year period, it obviously cannot be construed as an economic study of the life-cycle costs of River Bend, which had an estimated life of forty years, or of that of its alternatives.

Regarding the Federal Power Commission's 1978 study entitled "Nuclear vs. Coal Cost Comparison," the Commission argues that it is a backward-looking analysis of costs of plants already on line in 1975, and that the majority of the nuclear plants reviewed cost less than $100 million. Again, the study did not address the economics of River Bend or an alternative to that unit. The Commission further contends that Gulf States' reliance on a Nuclear Regulatory Commission study issued in December 1978 is undermined by the testimony of Norman Lee, the president of the company at the time of the restart decision, who acknowledged that he did not show the study to the Board, and knew that the capital cost assumptions reflected in it were well below the estimated cost of River Bend in 1979. The Commission also argues that the company's claim that this study reflected a consensus view in the industry on the economics of nuclear versus coal is contradicted by the fact that the nuclear industry cancelled more units than it started in 1977, 1978, and 1979. In 1978, there were thirteen cancellations and one start. In 1979 there were eight cancellations and one start—River Bend, the last nuclear plant to be started anywhere in the country.

Finally, the Commission addresses testimony by company representatives that numerous comparative studies were performed during the period at issue. The Commis-

sion notes that on November 15, 1978, James Derr, a Gulf States planner, filed testimony before the Commission to show that River Bend would be economical. The comparative cost calculations were shown on one page of paper, which Mr. Lee later testified was typical of the many studies allegedly performed by Derr and other executives, and which he characterized as "back-of envelope" studies. The Commission argues that the Derr analysis, although it purported to be based on the total cost of River Bend, listed a cost per kilowatt of $1,400, or about $1.3 billion for the unit. Mr. Lee testified that in November of 1978, Gulf States knew that River Bend would cost about $1,800 per kilowatt, but that it was necessary to use the "official" estimate of the project's cost before the Commission.[7] The Commission concludes that the company was aware that cost studies employing accurate estimates would not support the nuclear alternative.

The Commission contends that other documents reveal that the restart decision was motivated by Gulf States' desire to avoid a large write-off rather than by concern for the economic consequences to its ratepayers.[8] The company's top management met on August 1, 1978 to discuss "the most serious problem facing the company—what to do about River Bend I." The minutes of that meeting disclose that there was an extensive discussion

[7] The Commission notes that this was not the only occasion on which Gulf States did not disclose to the Commission the actual estimated cost of River Bend. On July 24, 1980, the Chairman, Mr. Crawford, testified before the Commission. At that time, the company had estimates showing that the unit would likely cost $2.154 billion, and knew that increases in its estimated cost had been averaging $42.5 million a month. In his testimony, however, Mr. Crawford used only the "official" figure of $1.729 billion.

[8] The company estimated that it had already invested $300 million in River Bend, and would have approximately another $100 million in cancellation costs. After an adjustment for tax benefits, it predicted that its write-off would be close to $200 million. At that point, common equity in the company was roughly $500 million.

of the effects of cancelling the unit. Following this discussion, the Chairman, W. Donham Crawford, ruled out a write-off of the investment in River Bend, and concluded that the company was left with one option, "and that option is to build it." The Commission argues that, given the magnitude and the risk of the project that it was contemplating, Gulf States' failure to make any attempt to ascertain the Commission's position on a possible River Bend cancellation, and the company's cursory assumption that it would receive no rate relief for recovery of sunk costs if the unit was cancelled, were unreasonable. It notes, for example, that in 1978 or early 1979, Gulf States was allowed recovery and a return on its amortized investment in the cancelled Blue Hill coal units, as well as a return on the unamortized balance on those units. The Commission further contends that the company's decision to build the unit only if it could not be sold clearly was designed solely to preserve the value of the asset, and not to provide least cost energy. The Commission cites the company's selection of the option to sell as its first choice as evidence that Gulf States' management did not really believe nuclear to be the most economical alternative.

[3] *Generation Alternatives: Commission's Economic Studies*

The Commission's consultants testified that although they had found the decision to restart River Bend to be imprudent, it was still necessary to determine whether there should be an imprudence *disallowance*, since even an imprudent planning process could lead to a beneficial economic result through fortuitous circumstances. Kennedy & Associates therefore analyzed what generation choice the company should have made, based on circumstances existing at the time, and whether that choice would have been beneficial compared to River Bend. An economic analyst employed by the firm, Randall Falkenberg, determined that one alternative had been a lignite plant, which Gulf States' expansion plans showed could be completed

within the same time frame as River Bend. He thus performed a study comparing the option of completing River Bend against cancelling the unit and replacing it with a lignite plant. Employing least cost techniques and a computer model assertedly used by utilities during the relevant period, Mr. Falkenberg compared these alternatives over a range of variables and assumptions. He concluded that lignite had an economic advantage over nuclear of approximately $60 million a year, or more than $2 billion in total.[9]

In order to calculate the damages resulting from the company's restart decision, Kennedy & Associates determined the cost of a lignite unit the size of Gulf States' share of River Bend, to which they added the sunk and cancellation costs associated with River Bend, the cost of additional transmission facilities for a lignite unit, and the loss of tax benefits associated with the nuclear unit. As a result of these calculations, they recommended that $1.4 billion of Gulf States' $3 billion investment[10] in River Bend be disallowed from the rate base as imprudent. That figure did not include the cost of the company's obligation to purchase electricity from Cajun's portion of the unit for five years or certain accounting order deferrals granted to Gulf States by the Commission in December 1986. Dr. Kennedy testified that had

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[9] The Commission also notes that in response to criticism that his assumptions were inappropriate for Gulf States, Falkenberg performed a second study using information supplied by the company's own planners. He performed two analyses, one for early 1979, when the restart decision was made, and one for September 1979, the approximate time that structural concrete was poured. His first analysis reflected a $60 million annual benefit for a lignite plant; the second analysis showed an economic advantage of $90 million per year for lignite.

[10] Although Gulf States' total investment in River Bend was approximately $3 billion, that amount is shared by the Louisiana and Texas retail jurisdictions. Louisiana's portion of the investment is slightly less than half.

those costs been included, the total disallowance would have been as high as $2 billion.

Another consultant hired by the Commission, Charles Komanoff, also performed an analysis of the restart decision. He determined that Gulf States' management should have decided to build a coal-fired unit in 1979, particularly in light of the accident at the Three Mile Island Nuclear Plant in March of that year. The Commission argues that the accident, which involved an unprecedented degree of core damage and led to greatly expanded federal safety regulations, dramatically increased the financial risks involved with the construction of a nuclear plant. Mr. Komanoff testified that the anticipated increase in costs for River Bend as a result of the Three Mile Island accident should conservatively have been estimated at 25%. In response to the incident, Gulf States' Chairman, Mr. Crawford, requested a comprehensive analysis of its impact on River Bend. Five and one half weeks later, a committee chaired by Dr. Linn Draper issued a report consisting of a one and one half page memorandum with twenty pages of attachments. The report concluded that the nuclear accident at Three Mile Island would not significantly affect River Bend because of the dissimilarities in the types of reactors used in the two plants. No further reports were issued.[11] The Commission maintains that the company's response was inadequate in view of the severity of the accident.

Mr. Komanoff testified that Gulf States should also have been put on guard by the compelling evidence of adverse cost trends for nuclear plants under construction at that time. The estimated construction costs of such plants were escalating at the rate of approximately 22% a year. The Commission notes that the trend was evident

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[11] Dr. Draper testified that he did not "recall specifically drafting a report giving an analysis of changes occasioned by Three Mile Island."

in 1979 in respect to River Bend—its estimated cost was six times higher at that time than it had been just eight years earlier in 1971. Mr. Komanoff also testified that empirical data was available to Gulf States in 1979 which showed that the current and prospective cost escalation of coal was less than that of nuclear. He recommended that a $\frac{2}{3}$ imprudence disallowance be applied to the company's investment in River Bend, or a total of approximately $2 billion.

4. *Public Service Commission's Order Regarding Prudence*

The Commission adopted the recommendation of Kennedy & Associates to disallow $1.4 billion of the investment in River Bend. The Commission found that the actual negative economic effect of Gulf States' imprudence was $2 billion, but accepted the lower figure because its consultants had determined that this disallowance would allow the company to remain financially viable.

B. Gulf States' Position On Prudence

While it has taken issue with the Commission's finding of imprudence, Gulf States does not specifically ask in this appeal to have added to the rate base the disallowed portion of its River Bend investment.[12] However, the company argues that as long as the finding of imprudence remains, the threat of punitive rate treatment in the future exists in other regulatory jurisdictions (presumably a reference to Texas where the merits of a $1.456 billion prudence disallowance are now pending), as well as in Louisiana. Further, Gulf States contends that the finding will continue to have an adverse impact on its financial statement, upon which its standing in the financial com-

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[12] As discussed in the next section of this opinion, the district court's order implementing a rate base exclusion plan in large part offset the adverse economic effects that the company would otherwise experience as a result of the disallowance.

munity is judged by future investors. It therefore seeks to have the Commission's finding of imprudence overturned for reasons discussed hereafter.

1. *Load Forecasting: Need For New, Diversified Generation*

Gulf States maintains that as a result of the beginning of federally-mandated gas curtailment, new restrictive federal regulations, and the Arib oil embargo, it was plunged in the early 1970s into a "new energy world," requiring immediate conversion of existing gas generating units to oil-burning capability; the prompt creation of a massive fuel procurement program; and the planning and construction of new generating facilities which burned neither natural gas nor fuel oil (because of concerns about both the expense and future availability of those two fuels). The company states that even before those events, it had taken steps to address fuel diversification concerns by commissioning studies evaluating nuclear and fossil generation in Louisiana. As a result of these studies, management decided in 1971 to build nuclear generating plants at River Bend. The company continued to evaluate its options, and by the mid 1970s, Gulf States included coal, nuclear, and lignite in its planning documents as sources of future generation.

The company's planning process was impacted by a significant downturn in its load growth during 1974-1976, caused by a national recession. Further, in January 1977, the Public Service Commission rejected Gulf States' application for a \$23.8 million rate increase. The company therefore deferred construction of both the two Nelson coal units and River Bend. The company notes that the situation again changed dramatically, however, when its load growth increased 12% in 1977 and 10% in 1978. New internal growth projections of a 5.9% compound annual growth rate indicated a need for substantial amounts of additional capacity. Gulf States contends that

this need was multiplied in 1978 by Congress' passage of the Fuel Use Act, which threatened it with the loss, by 1990, of its gas-fired generation, or virtually all of the base load generation on its system. Gulf States contends that it was thus faced not only with a substantially increased load growth, but with the need to replace an entire generating system. In light of this "monumental and overwhelming situation," the company argues, the Commission's preoccupation with load forecating technique and with one generating unit (River Bend) was unreasonable.

The company asserts that its forecasted need for significant additional generating capacity was confirmed by the Public Utilities Commission of Texas, which in 1978 granted Gulf States a Certificate of Convenience and Necessity for two River Bend units, and Nelson coal units 5 and 6. Assuming an annual load growth of 3.7% from 1979 to 1987, the Texas Commission found that without construction of all four plants, Gulf States would have a deficiency of 594,000 kilowatts in generating capacity by 1987. Gulf States also cites the Louisiana Public Service Commission's decision in December 1978 to grant the company rate relief to support its construction program. At that time the Commission noted "the possibility of inadequate reserve margins in the next few years in the absence of the addition of substantial generating capacity." Finally, the company refers to the National Electric Reliability Council Annual Review for 1978, 1979, and 1980. The 1978 Review's electric peak load projection for the period of 1978 to 1987 in the Southwest Power Pool Region, in which Gulf States is located, was 6.2%. The 1979 Review projected an average annual compound growth of approximately 6.1% for the period 1979 to 1988. Gulf States persuasively argues that these contemporaneous load projections, which were in line with its projections of a 5.9% load growth, should be the basis for determining whether its forecasts were reasonable, rather than Mr. Baron's after-the-fact analysis.

Gulf States also responds to the Commission's criticism of its use of interviewing and trend extrapolation as load forecasting techniques. It cites a 1985 study titled "Selecting the Best Load Forecasting Techniques for Electric Utilities," which stated that in 1978, trend extrapolation was used by 25% of the nation's large utilities for forecasting residential loads, and by 32.7% of those companies to forecast commercial customer loads. The study also reported that 19.6% of the large utilities used the customer interview process to predict industrial load. Gulf States observes that even Mr. Baron's load forecasts indicated a need for two major generating units by 1985, without considering the impact of the Fuel Use Act.[13] The company asserts that the issue therefore was not whether to build an additional unit, but rather how many additional units to build.

2. *Generation Alternatives Gulf States' Economic Studies*

Gulf States also argues that it pursued a well-reasoned analysis of generation alternatives to River Bend, and that the entire background of the project must be reviewed in order to place the 1979 restart decision in perspective. In 1968 the company received a report from Stone & Webster concerning possible locations for nuclear, gas, and coal generating plants. In 1970, it commissioned the same firm to evaluate the relative economics of nuclear and coal generation. After a thorough analysis, Stone & Webster concluded that the total cost of nuclear energy production would be less expensive than coal or oil. Studies performed in 1973 and 1974 by both Stone & Webster and Bechtel Corporation also found that nuclear had an economic advantage over the alternatives.

[13] The company notes that Mr. Baron's projection of a 1984 peak demand of 6,776 MW was within 2.5% of Gulf States' prediction of 6,950 MW, and that Gulf States' forecasting error was 26.9%, while Mr. Baron's was 23.8%, a difference of only 3%.

That conclusion was further reinforced by a report issued in 1974 by the Atomic Energy Commission.

Gulf States maintains that it continued to evaluate the economics of the generation options throughout the period that the project was suspended, and that these evaluations reaffirmed the economic advantage of nuclear generation. It refers to a 1976 study entitled "Update Coal & Nuclear Power Plant Cost"; a 1978 Federal Power Commission study; an internally generated 1978 "Restart Study," which the company claims analyzed the comparative economics of nuclear and fossil fuel generation, as well as the financial impact of various options on the company, its ratepayers, and its stockholders; and testimony by company representatives that the analyses comparing coal, nuclear, and lignite costs were "virtually constant." Mr. Lee testified that management was aware of studies showing that River Bend remained the most economic alternative up to a $2 billion total capital cost. Finally, Gulf States relies on a December 1978 study performed by the Nuclear Regulatory Commission which compared nuclear and coal costs for every region in the country, and concluded that nuclear would be less expensive. The company argues that this study confirmed both its own estimates and the February 1978 Federal Power Commission study.

Gulf States maintains that the Commission's criticism of its economic studies is unfounded. It disputes the Commission's contention that the comparative study presented to the Commission by its planner, James Derr, in November 1978, reflected a total cost for River Bend of $1,400 per kilowatt, when the utility knew at that time that the unit would cost about $1,800 per kilowatt. The company argues that in a study of whether it would be more economical to complete River Bend or to cancel it and construct an alternative plant, the costs already spent for the nuclear unit at the time of the analysis must be disregarded, since they must be counted as sunk costs in

either case. It asserts that if those costs are ignored, the resulting capital cost of River Bend is very close to the $1,400 per kilowatt figure used by Dr. Derr.

Gulf States also addresses the Commission's conclusion that the 1979 "Restart Study" could not be used to compare the economic consequences of generation options. The company contends that the study clearly showed that the completion of River Bend, with 40% participation being sold to another utility, was the best option for both the ratepayers and its own financial health.[14] The company argues that because sale of a portion of the plant tended to shift the economics in favor of nuclear, it could reasonably focus on non-economic factors, such as financial considerations and fuel diversity, in making the ultimate decisions on River Bend. It contends that given the uncertain energy environment facing the company at the time of the restart decision, it was not unreasonable to "hedge its bets" by diversifying the company's generation mix. It explains that all of its generation plans produced during the 1978-1979 time frame included coal, lignite, and nuclear for the maximum possible diversification.

Gulf States also emphasizes that there were numerous updated studies of River Bend's construction costs during this period. In 1977 it received a study of estimated costs from Stone & Webster. That estimate was evaluated by Management Analysis Company, which concluded that there was a 50% probability that the project would cost $1.5 billion and a 90% probability that it would cost $1.7

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[14] Although Gulf States' planning documents reflect the sale of a 40% participation in River Bend, the company was able to sell only 30% (to Cajun). The company maintains, however, that the consultants' analyses consistently ignored the economic and financial effect of selling a participation in the unit. It claims that merely assuming the sale of a 30% participation would have resulted in a $53 million annual savings to Gulf States over the life of the plant. The utility notes that Mr. Falkenberg testified that the lignite option had only a $60 million annual economic advantage over nuclear.

billion or less. The company's own engineering department arrived at a similar construction forecast. In 1978, Gulf States decided to rebid River Bend, and solicited bids from four national engineering/construction firms. An internal evaluation of the bids indicated a cost of approximately $1.7 billion, while Management Analysis Company independently evaluated the construction costs at $1.670 to $1.770 billion. In September 1979, Stone & Webster completed a definitive estimate which confirmed that River Bend would cost approximately $1.7 billion.

Gulf States further contends that it performed a detailed analysis of what effect the accident at Three Mile Island would likely have on River Bend's cost. It argues that because of the complete dissimilarity between the types of reactors used in the two units, it was reasonable to conclude that the accident would add no more than $25 to $50 million to River Bend's cost.

3. *Generation Alternatives: The Commission's Economic Studies*

Gulf States argues that the Commission's consultants' study of a lignite alternative to River Bend ignored several important factors. Among those cited are whether a new plant could have been financed if River Bend had been cancelled; the fact that Gulf States had entered into an agreement to participate in lignite units with Cajun Electric in north Louisiana; and the probability of acquiring lignite reserves in the time required. The company recites its unsuccessful efforts to obtain sufficient reserves before the restart decision.[15]

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[15] Lignite reserves acquired by Gulf States in the mid 1970s turned out to be insufficient or located in areas which could not be mined. In 1978, the Brazos deposit in Texas, the largest and most economical available at the time, was determined to be unmineable because of its location in a flood plain. Gulf States next focused on reserves held by Phillips Coal Company and Shell Oil Company in Texas as the best remaining option. As a result of the prices

The company also challenges the Commission's finding that a lignite plan could have been constructed by 1985. It points to a 1978 study performed by the company's engineering department which concluded that a minimum of 7½ years would be required to select a site, obtain permits and licenses, and construct a plant.[16] Finally, the company criticizes Mr. Falkenberg's analysis comparing the projected life-cycle ccsts of River Bend with those of a hypothetical lignite plant. It maintains that some of his input assumptions were incorrect, that he chose to rely only on certain of the numerous documents pertaining to lignite analyses in the company's files, and that he provided no justification for those numbers which he did use.[17]

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quoted by those companies, however, as well as their insistence that there be future price adjustments tied to the price of oil and gas, the company concluded that this option was not economical.

[16] Witnesses for Gulf States testified that in 1978-1979 the company's management doubted whether a lignite plant could be brought into commercial operation as fast as River Bend. There was also testimony that company generation plans produced during this period showing lignite plants coming on line in less than 7 years were intended to be used only for economic comparison purposes, and did not mean that the company had concluded that a plant could have been constructed in that time frame.

[17] Gulf States contends that Falkenberg's 1985 base fuel costs were predicated on one year's data from plants operated by Texas Utilities Electric Co., and assumed that future costs of mining lignite would not rise faster than the rate of inflation, whereas Texas Utilities' fuel costs at each of the plants studied had actually risen between 19% and 27% a year. Dr. Pleatsikas, an economics expert testifying on behalf of Gulf States, stated that plugging the range of lignite costs projected by the Commission's own lignite expert, Kenneth Watkins, into Falkenberg's analysis would change its result to one favoring the completion of River Bend. The company further asserts that he dismissed site-specific engineering studies of lignite costs, and provided no justification for the numbers used in his analysis. David Beekman, a witness for Gulf States, testified that simply modifying one of Falkenberg's input assumptions concerning lignite fuel cost, lignite heat rate, lignite capital cost, or nuclear

C. *The Attorney General's Position on Prudence*

The Attorney General, on behalf of the State of Louisiana contends that the amount of the investment in River Bend found to be imprudent by the Commission was too low. He first argues that had the Commission's consultants considered alternatives other than nuclear and lignite, they would have found coal to be even less expensive, and thus would have recommended a greater disallowance. He also maintains that the consultants erred in failing to calculate the full measure of damages caused by Gulf States' imprudence. Instead, Kennedy & Associates determined the maximum disallowance which, according to their calculations, Gulf States could absorb without becoming insolvent. The Attorney General argues that if disallowance of the total amount of damages would result in the company's insolvency, then an inquiry should have been conducted, for review by the Commission, concerning whether the reorganization of Gulf States under Chapter 11 of the Bankruptcy Code or a similar private plan was in the public interest or not. He contends that because inquiries concerning the total damages and the effect of insolvency were not made, the ratepayers did not receive an informed decision of the Commission, based on evidence in the record, which reflects a full disallowance for the effects of Gulf States' imprudence, as required by article IV, § 21 of the Louisiana Constitution.

Finally, the Attorney General argues that a finding of imprudence in the decision to build River Bend should have resulted in a disallowance of Gulf States' entire investment, except for the sunk costs and the reasonable cancellation costs that would have been incurred in 1979. He contends that any energy from the plant that the

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capital cost by as little as 5%, causes the results of his model to switch to favor the nuclear option. Gulf States argues that no finding of imprudence can be based upon a 5% difference in various cost assumptions when projecting thirty years into the future.

Commission found to be needed by the system under the "used and useful" test could then be paid for by the ratepayers at a cost the Commission determined to be just and reasonable.

FINDINGS AND CONCLUSIONS REGARDING PRUDENCE

After considering the contentions of the parties and the extensive record in this case, we have concluded that the Commission's order finding that Gulf States was imprudent to restart River Bend in 1979 is reasonably supported by the evidence, and is neither arbitrary nor capricious. The Commission's consultants presented sufficient credible evidence to raise a serious doubt about the prudence of the company's investment, and the Commission was not unreasonable in finding that Gulf States then failed to carry its burden of proving that the restart decision was prudent. While the evidence to support particular findings of imprudence is in some instances less than overwhelming (specifically, in regard to Gulf States' overestimation of future load growth in 1978-1979), there is clearly sufficient basis in the record to support the conclusion that the process leading to the restart decision was flawed, and that, given the information available at the time, prudent managers would not have chosen in 1979 to construct a nuclear power plant.

First, there is credible evidence that during the relevant time period Gulf States was aware that its forecasting methods, while not completely out of the mainstream of those used by other utilities, were unable to measure the impact of price increases on demand at a time when company analyses were predicting an unprecedented rise in prices. It was also not unreasonable for the Commission to conclude that a 1978 peak demand forecast, a critical forecast for the River Bend restart decision, was seriously flawed because it projected load growth only until 1984, one year prior to the anticipated commercial operation date of the unit.

Furthermore, Gulf States' principal argument regarding load growth—that as a result of various factors, chiefly the Fuel Use Act of 1977, it faced an overwhelming need to build new and diversified generating plants—is contradicted by extensive evidence that even after the company was aware of the sudden increase in its load growth in 1978 and 1979 and of the provisions of the Fuel Use Act, it still decided in August 1978, as a first option, to attempt to sell the unit. It was only after this attempt was unsuccessful that management made the decision to build. In addition, there was testimony before the Commission that the replacement of River Bend with a lower priced lignite unit would have given Gulf States the financial capability to more easily diversify away from oil and gas.

There was also sufficient evidence for the Commission reasonably to find, as did the district court, that Gulf States' economic analysis of the options available in 1979 was inadequate. The studies performed or commissioned by the company in the early 1970s comparing the costs of the alternatives over the life of the plants were based on cost assumptions that clearly were outdated by 1979. Credible evidence was also presented showing that the later studies relied upon by Gulf States were deficient as side-by-side comparisons of the life-cycle costs of River Bend and the alternatives.[18] The lack of thorough economic studies is particularly significant given the magni-

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[18] The company appears to place particular emphasis on the 1978 "Restart Study" and the Nuclear Regulatory Commission study issued in the same year. The former, while providing some relevant comparative data, patently was not an analysis of costs over River Bend's estimated forty-year life cycle, versus those of its alternatives. Further, there was testimony from Gulf States' own witness, Norman Lee, that the capital cost assumptions used in the latter study were far lower than the known estimated cost of River Bend in 1979. Regarding the testimony by Gulf States witnesses that frequent levelized comparative studies were performed, it was not unreasonable for the Commission to discount studies whose assumptions and results it had no way of objectively evaluating.

tude of the investment being contemplated. As early as late 1979, when construction of River Bend was less than 8% complete, Gulf States' investment in the unit accounted for 68% of its common equity. In 1978, the investment was almost three times common equity. Thus continuation of River Bend's construction was, as a Gulf States' consultant expressed it in 1980, a "bet-your-company" decision. Finally, it was reasonable to infer from the fact that in testifying before the Commission Gulf States used the "official" estimated cost of the unit, rather than the higher actual estimated cost, that cost studies employing the latter would not support the nuclear alternative.

In addition to the lack of site-specific economic studies supporting the company's contention that River Bend was the most economical alternative, the Commission was presented with persuasive evidence concerning factors which at the time of the restart decision or shortly thereafter signalled a significant increase in the financial risks associated with nuclear plants. These factors included a 22% annual increase in their estimated construction costs, a trend that was evident in River Bend's own history of cost escalation, and the accident at Three Mile Island, which at the least indicated the probability of more stringent regulatory requirements in the future and the continuation, if not acceleration, of adverse cost trends. There is also convincing evidence showing that the reaction within the industry to these factors was a dramatic downturn in nuclear plant starts, and a corresponding increase in cancellations, until in 1979 there were eight cancellations and no starts—other than River Bend. Finally, the Commission was presented with the minutes of a Gulf States management meeting held on August 1, 1978, which strongly suggest that the company's primary concern at that time was not providing least cost energy to its ratepayers, or the diversification of its generation sources, but rather the avoidance of a write-off of its existing investment in River Bend at the expense of its shareholders.

h regard to the analysis performed by Commission sultants Kennedy & Associates, comparing the cost of River Bend to that of a lignite plant, there is contradictory testimony by the Commission and Gulf States concerning whether sufficient lignite reserves were available in the relevant time period, what the costs of acquiring available reserves and constructing plants would have been, and whether it would have been reasonable to assume that a lignite plant could have been built within the same time frame as River Bend. There were also charges by both sides that the other made selective use of available documents in deciding what input assumptions to use in its computer models, and that the results of those models are therefore subject to manipulation. As noted above, however, unless an order of the Commission is not reasonably supported by the evidence, the function of the court is not to reweigh and reevaluate the evidence or to substitute its judgment for that of the expert body constitutionally entrusted with the regulation of the matter. *Southern Message Serv., Inc. v. Louisiana Public Serv. Comm'n*, 426 So.2d 606 (La. 1983). In this case, there is a sufficient basis in the record to support the Commission's conclusion that lignite was a viable and economically beneficial alternative to River Bend, and that a prudent public utility would have chosen it in preference to completing the nuclear plant.

Regarding the arguments of the Attorney General, it is true that public utility regulation does not insure that the business shall produce net revenues. *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). The Supreme Court decisions in *Hope* and the subsequent case of *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968), have been construed to mean that there is no requirement that the end result of a rate-making body's adjudication must be the setting of rates at a level that will guarantee the continued financial integrity of the utility. *See e.g., Kansas Gas & Elec. Co. v. State Corp.*

Comm'n, 720 P.2d 1063 (Kan. 1986); *Appeal of McCool*, 514 A.2d 501 (N.H. 1986); *Pennsylvania Elec. v. Pennsylvania Pub. Util.*, 502 A.2d 130 (Pa. 1985). However, it is also true that it is the Public Service Commission which is constitutionally accorded the authority to decide how the interests of ratepayers and the utility should be balanced in any given rate case. In the exercise of that authority, the Commission may, within its discretion, make a policy determination concerning whether the interests of the ratepayers are better served by disallowing the full damages flowing from a utility's imprudence, or by tempering the disallowance in order to maintain the utility's solvency. See *Appeal of McCool*, 514 A.2d 501 (N.H. 1986).

The Attorney General does not dispute the Commission's authority to make such a policy determination. Rather, he argues that because there was no inquiry concerning the total damages resulting from Gulf States' imprudence or the effects of its insolvency, the Commission had no factual basis on which to make such a determination in this case. The record reveals, however, that employees of Kennedy & Associates did testify regarding their estimates, albeit rough ones, of the total disallowance which would result if the Cajun buybacks and accounting deferrals (the two factors which the Commission chose to disregard in calculating the imprudence disallowance) were considered. In addition, Mr. Komanoff analyzed what the expected cost of an alternative coal plant would have been, and testified extensively on the full imprudence disallowance which he would recommend concerning Gulf States' investment in River Bend. As a result of this testimony, the Commission found that the full extent of the damages resulting from the company's imprudent decision was $2 billion. Further, there was testimony before the Commission, presented by witnesses on behalf of the Attorney General, concerning the possible beneficial effects of bankruptcy reorganization of

utilities in general, and of Gulf States in particular. Given the evidence in the record, we find that the Commission could reasonably have concluded that consumer interests were better served by maintaining Gulf States in a position to provide a reliable supply of electric service than by resorting to the uncertainties of the bankruptcy court.

As noted above, the Attorney General alternatively argues that once the Commission found the decision to restart River Bend imprudent, the company's entire $3 billion investment in the plant, minus its sunk costs in the year 1979 and reasonable cancellation expenses, should have been disallowed. He contends that any energy needed by the Gulf States system under the "used and useful" test could then be paid for by system ratepayers at a rate determined by the Commission to be just and reasonable. Since the State explicitly expresses approval of the methodology used by the Commission's consultants, however, as well as their conclusion that a prudent utility planner would have opted to build a non-nuclear plant in 1979, it follows that the damages resulting from the decision to build River Bend should be measured as the difference between the cost of the nuclear unit and the cost of the prudent alternative, determined in this case (after adjustment to maintain Gulf States' solvency) to be $1.4 billion.

In conclusion, the Commission was presented with persuasive evidence that Gulf States was aware, in 1978 and 1979, of significant inadequacies in its forecasting methods; that, faced with a "bet-your-company" situation, the utility failed to perform side-by-side economic comparisons of generation alternatives prior to the restart decision; and that the company's first choice was to sell River Bend, belying its present claims that the nuclear unit was the most economical alternative and was critical to its ability to meet load demand. Additional evidence was presented regarding Gulf States' use of "official," rather than known

actual (higher) estimated costs to justify its decision; its failure to take into account the 22% annual increase in nuclear plant construction costs, which had been well documented at the time of the restart decision and was reflected in River Bend's own history of cost escalation; and its significant underestimation of the effects of the Three Mile Island accident. Also offered into evidence were the minutes of an August 1, 1978 management meeting which strongly indicated that the company's primary concern was the avoidance of a large write off, rather than providing the lowest cost energy to its customers. In those minutes, Gulf States' chairman is quoted as stating that the company could not sell the unit—"no one wants it"—and that it was left with one option, "and that option is to build it." Finally, evidence was introduced reflecting a dramatic industry shift, from 1977 to 1979, away from nuclear plant starts, and toward cancellations. In view of these factors and the other evidence presented to the Commission, we conclude that its finding of imprudence, and disallowance of $1.4 billion of Gulf States' investment in River Bend have a reasonable basis in the record, and are neither capricious nor arbitrary.

III. RATE BASE EXCLUSION PLAN

During the district court proceedings on the merits of the imprudence issue, testimony was presented by Gulf States regarding what it termed an "inventory plan." This plan was intended by the utility to resolve the controversy associated with the imprudence disallowance by providing a revenue source to support the portion of its River Bend investment excluded from the rate base.[19]

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[19] The company asserted two purposes in offering the inventory plan. On one hand, the plan would avoid the "rate shock" which the utility's ratepayers would suffer if the entire investment were to be added to the rate base at one time. On the other hand, the plan would benefit the company financially by reducing the amount of write-off which would result from an imprudence disallowance.

Pursuant to LSA-R.S. 45:1194, the district court remanded the case to the Commission for consideration of this "inventory" plan as well as other new evidence presented at trial in the district court. Following several months of meetings and communications between utility representatives and Commission consultants, the Commission issued Order No. U-17282-D. That order reaffirmed its earlier finding of imprudence, but also included a proposal for a plan somewhat similar to the inventory plan suggested by Gulf States. Under the Commission's proposal, which was termed a "rate base exclusion plan," an amount of capacity equivalent to the portion of the investment in River Bend excluded from the rate base would be treated as a deregulated asset. Ratepayers would guarantee the purchase of energy from the excluded capacity at 4.6 cents per kilowatt hour. The Commission would retain the right to approve off-system sales from the deregulated asset or the sale of the asset itself, or alternatively, to return all or a portion of the disallowed investment to the rate base. Sixty percent of the proceeds of off-system sales which should exceed 4.6 cents per kilowatt hour would be allocated to reduce rates paid by Gulf States' customers for the regulated portion of River Bend. In addition, the Commission would be entitled to obtain the benefits associated with any settlement reached by Gulf States with regulators in another jurisdiction (again, an apparent reference to Texas), which should prove more favorable than the rate base exclusion plan in reducing River Bend costs to ratepayers. The plan further obligated Gulf States to accept a return on equity of 12.75%. Finally, and most significantly, both parties were required to drop all pending appeals, notably Gulf States' appeal of the imprudence disallowance.

The Order, No. U-17282-D, stipulated that Gulf States accept or reject the proposed rate base exclusion plan within ten days. It further provided that if the company were to reject the plan, the findings and conclusions in the

Commission's previous order, No. U-17282-C, which contained no ameliorative provision, regarding the disallowed portion of the River Bend investment, would be reinstated. Gulf States notified the district court that it would not accept the Commission's plan,[20] and the case returned to that court for briefing and oral argument. In its decision rendered on October 11, 1989, the court thereupon upheld the Commission's imprudence disallowance of $1.4 billion, but also ordered the implementation of the rate base exclusion plan proposed by the Commission in Order No. U-17282-D.[21] The Commission and Attorney General now asks this Court to reverse that portion of the judgment directing the implementation of the rate base exclusion plan, while Gulf States requests that the implementation order be affirmed after the deletion of certain of the plan's "punitive" provisions.

The Commission's appeal of the court's action relies on two main arguments. First, the Commission maintains that because it found $1.4 billion of Gulf States' investment to be imprudent, it was within its authority to exclude the entire investment from the rate base. See, *e.g., In Re Long Island Lighting Co.*, 71 P.U.R. 4th 262

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[20] Gulf States asserted that its rejection of the plan was based on the Attorney General's refusal to dismiss his appeal on behalf of the State seeking to have the entire River Bend investment, other than sunk and cancellation costs, excluded from the rate base.

[21] The court stated:

> In this regard the Court notes and invokes its authority pursuant to LSA-R.S. 45 Part V PSC, Section 1191, to change, modify, alter or reverse a COMMISSION order as the ends of justice will best be served by ordering the COMMISSION to implement and enforce its proposed deregulated asset plan in a manner not inconsistent with the views expressed herein.

The Commission contends that it is not clear from the district court's decision which terms of the rate base exclusion plan proposed by the Commission are to be implemented. The plan not only called for the dismissal of all appeals, but also for Gulf States' acceptance of a 12.75% return on equity, neither of which occurred.

(N.Y. Pub. Serv. Comm'n, 1985); *Philadelphia Electric Co. v. Pennsylvania Public Utility Comm'n*, 538 A.2d 98 (Pa. Comm. Ct. 1988). The Commission further contends that it would also have been within its constitutional authority to adopt an alternative more favorable to the utility than complete exclusion if it found such an alternative to be in the best overall interests of the ratepayers. The Commission strenuously argues, however, that because it found exclusion of the entire imprudent investment to be the preferred disposition of the case, and the district court affirmed that decision, it was not within the court's discretion to impose an alternative which would in effect allow the utility to obtain a return on its imprudent investment and deny the ratepayers the benefit of the imprudence disallowance.

The Commission points out that its imprudence determination reflected a finding that Gulf States could have obtained capacity equivalent to its 70% share of River Bend's 940 megawatts, *i.e.*, 658 megawatts, for $1.6 billion, rather than the $3 billion actually spent. In contrast, under the rate base exclusion plan, Gulf States is permitted to deregulate 47% of the megawatts dedicated to the service needs of Louisiana ratepayers, and to sell energy from that capacity to other customers for its own financial benefit. As a result, instead of receiving Louisiana's share of the 658 megawatts (approximately 318 megawatts) for its portion of the $1.6 billion found by the Commission to be prudently invested in River Bend (approximately $706 million), Louisiana ratepayers will receive only about 168 megawatts. Furthermore, despite Gulf States' claim that the plan will not lead to rate increases, the Commission argues that other capacity, for which ratepayers would bear the cost, may have to be built in the future to replace the deregulated asset. And, if the Commission allows the addition of the deregulated capacity to the rate base in the future, ratepayers would be forced to pay for it again at its net book value.

The Commission cites the case of *South Central Bell Telephone Co. v. Louisiana Public Serv. Comm'n*, 236 So. 2d 813 (La. 1970) for the proposition that it has exclusive jurisdiction to fix rates, and that courts are without power to fix or change rates until the Commission has acted. It also refers to *Louisiana Power & Light Co. v. Louisiana Public Serv. Comm'n*, 523 So.2d 850 (La. 1988), in which this Court held that a court should not unilaterally choose among regulatory options constitutionally entrusted to the Commission. It further argues that circumstances, including the financial position of the utility, have changed since it offered the plan in 1988, and that such a plan may no longer be appropriate. Finally, the Commission notes that the district court judge himself expressed uncertainty about the propriety of his order implementing the plan.[22]

In its second line of argument, the Commission contends that because the rate base exclusion plan was offered in an effort to settle the entire litigation with Gulf States, its court-imposed implementation violates legal principles designed to encourage settlement. Although the court acknowledged that the plan was part of an offer conditioned on dismissal of all litigation, it nevertheless characterized the plan as a "policy decision" of the Commission. The Commission argues that it was improper for a court to rely on a settlement offer as the basis for deciding a case. It notes that the offer clearly reflected litigation risk, and that while the proposal to allow a rate base exclusion plan, coupled with various conditions, may have been characterized as a policy decision, it did not reflect a conclusion that the plan, absent those conditions, constituted a policy that fairly balanced the interests of the utility and the ratepayers. Finally, the Commission

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[22] During oral argument on an application for rehearing, the judge stated that "the court realizes it may have overstepped its bounds," and that "I am fairly convinced at the moment that is an error on the court's part."

contends that the court's action in effect penalized the party which was victorious on the underlying liability issue for making a compromise offer, a precedent that would deter future offers of settlement.

In his appeal, the Attorney General reiterates the argument that allowing any of Gulf States' imprudent investment to enter the rate base in the future would require the ratepayers to pay for the capacity twice. He contends that such an occurrence would amount to a "confiscation of the consumers' property." He therefore asks this Court to set aside the district court's order, and to direct the Commission not to implement a plan which includes placing any of the imprudent investment into the rate base.

Gulf States seeks to have the district court's order implementing the rate base exclusion plan affirmed, except for what it terms the "punitive portions" of that plan. It requests this Court to reverse the provisions requiring the allocation of 60% of off-system sales to the reduction of consumer rates, and granting the Commission the right to obtain the benefits of a more favorable settlement between the utility and regulators in another jurisdiction.

The utility first argues that the district court acted within its discretion in ordering the implementation of the plan. It cites La. Const. art. 4 § 21(E), which provides that a utility's right of appeal to the district court extends to "any action" of the Commission. The company contends that the Commission's offer, extended in a formal rate order after consideration of Gulf States' proposal and that of its own consultants, indicates that the Commission had determined the plan to be a reasonable rate proposal. As such, it constituted agency action under the constitution and was subject to judicial review. The utility notes that the district court recognized that the Commission's action reflected a policy judgment. It emphasizes that the Commission's offer was embodied in a

final rate order, and is not analogous to a settlement proposal between a plaintiff and defendant in the context of ordinary litigation.

Gulf States next contends that the district court's modification of the proposed plan was also a matter within its discretion. It notes that once the Commission has exercised its initially exclusive jurisdiction, the grant of authority to the courts to review its action is extremely broad; LSA-R.S. 49:1192 empowers the district court to "change, modify, [or] alter" its orders "as justice may require." Further, the determination of what constitutes just and reasonable rates must be based on the facts and circumstances at the time of the rate proceeding. *Louisiana Public Serv. Comm'n v. Southern Bell Telephone & Telegraph Co.*, 14 P.U.R. 3d 146 (1956). Gulf States argues that the district court correctly determined that certain of the conditions imposed by the Commission on what was otherwise a just and reasonable proposal were unreasonable in view of the conditions existing at the time the offer was made. It contends that those conditions were so manifestly unreasonable that it had had no choice but to reject the plan.

Regarding the Commission's demand that the company drop all of its pending appeals, Gulf States notes that one such appeal concerned who would be responsible for funding a management audit of the company, an issue which had no bearing on the reasonableness of the rate base exclusion plan. Further, Gulf States contends that it could not afford to drop its appeal of the imprudence finding, because the Attorney General refused to dismiss his appeal seeking to have the company's entire \$3 billion River Bend investment, minus sunk and cancellation costs, excluded from the rate base. It argues that it could not risk losing an appeal on the disallowance issue, a possible eventuality which would jeopardize all or part of the \$1.6 billion recovery permitted by the Commission, *i.e.*, the prudent part of the River Bend investment.

Concerning the condition that would have required it to accept a 12.75% return on equity, Gulf States notes that the Commission's own consultants had recommended a 14% return, a recommendation affirmed as reasonable by the district court. The company argues that acceptance of the lower rate of return would have exposed it to financial ruin. Gulf States concludes that the district court was fully within its authority when it ordered the implementation of the rate base exclusion plan, (except for certain assertedly unreasonable features), as necessary to meet the ends of justice.

FINDINGS AND CONCLUSIONS REGARDING THE RATE BASE EXCLUSION PLAN

After considering the record of the proceeding, the evidentiary submissions of the parties, and the governing statutes and constitutional provisions, we conclude that the district court overstepped the bounds of its discretionary authority in ordering the implementation of the rate base exclusion plan. Once it had determined that the imprudence disallowance was supported by the record and was a reasonable disposition of the case by the Commission, acting within its constitutional and statutory authority, it was not the prerogative of the court to offset the effect of that determination in an effort to improve the financial position of the utility. Such a decision rests solely within the province of the regulatory agency. Although courts are statutorily permitted to "change, modify, alter, or . . . set . . . aside [orders of the Commission], as justice may require," LSA-R.S. 45:1192, that statutory standard of review may not supercede or abrogate the constitutional scheme in which plenary ratemaking authority is delegated to the Public Service Commission. See La. Const. art 4, § 21; *South Central Bell Telephone v. Louisiana Public Serv. Comm'n*, 340 So.2d 1300 (La. 1976) (under the constitution, the Commission has exclusive jurisdiction in the first instance to fix or change any rate to be

charged by a public utility, and courts are without power to fix or change any rate until the Commission has acted). The Commission's primary ratemaking authority was acknowledged in *Louisiana Power & Light v. Louisiana Pub. Serv. Comm'n*, 523 So.2d 850 (La. 1988), in which this court, although finding that the Commission's failure to establish some kind of deferral plan was unreasonable, held that the district court usurped the Commission's constitutionally protected ratemaking authority when it chose one of the options open to the Commission. Here, the district court chose an option when, because its substantive finding of imprudence had been upheld, the Commission was not required to adopt *any* ameliorative provision.

Nor can we agree with the district court's characterization of the rate base exclusion plan, standing alone, as a policy decision of the Commission. Although the plan was presented in a rate order, it was clearly part of a larger settlement offer which included the dismissal of all appeals and the utility's acceptance of a 12.75% return on equity. As the Commission argues, such an offer necessarily takes into account litigation costs and risks, in the absence of which it might well not have been made.

This is not to say that Gulf States is not at liberty to file anew with the Commission for rate relief, or that the Commission may not on its own motion choose to review the effects of its rate order.[23] If, in the future, the Commission should determine that prevailing economic realities, in conjunction with the rate order now under review, have placed the utility at serious financial risk[24] with

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[23] In this regard, counsel suggested in oral argument that the Commission would be receptive to reconsideration of whether some form of the rate base exclusion plan offered earlier would be in the best interests of both Gulf States and its ratepayers.

[24] The company has expressed concern that the imprudence disallowance will hinder its access to the capital markets. The Commission's consultants, on the other hand, gave their opinion that

potential adverse (and unacceptable) consequences for its ratepayers and shareholders, it would then be the Commission's responsibility to balance the appropriate interests involved in order to arrive at a proper solution.[25]

The aforestated reasons prompt our conclusion that the district court erred when it directed the Commission to implement a rate base exclusion plan.

IV. RATE OF RETURN ON EQUITY

As related above, Gulf States acknowledged that adding the full cost of its River Bend investment to the rate base would be an insupportable burden to its ratepayers. It therefore proposed a phase-in plan for recovery of those costs over several years. In Order No. U-17282-C, the Commission adopted a similar phase-in plan for the addition of the prudent portion of the investment to the rate base, although the order did not specify the exact amounts to be deferred in each year or the timing of the recovery of those amounts. In addition, the order granted Gulf States a 12% return on equity[26] and a first year rate

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Gulf States can remain financially viable with a $1.4 billion disallowance, even in the absence of a deregulated asset plan.

[25] Because it is the Commission that is constitutionally assigned the task of balancing consumer and utility interests, we decline to instruct the Commission not to adopt a plan which includes the possibility of returning the disallowed investment to the rate base in the future, a position urged by the Attorney General.

[26] The rate of return on common equity, determined by the return required to sell stock on reasonable terms in the market, is one component of a utility's cost of capital, which is in turn the basis for calculating an overall "fair rate of return" for that company. The other components are the cost of its debt, determined essentially by the annual interest requirements of the utility's bonds and the interest due on its short term debt, such as commercial paper or lines of credit from banks; and the cost of its preferred stock, governed basically by the dividend requirement on each stock. *South Central Bell Telephone Co. v. Louisiana Public Service Comm'n*, 352 So.2d 964 (La. 1977). Although the cost of the company's long-

increase of \$63 million, despite a recommendation by the Commission's consultants that the company be granted a 14% return on equity and a first year increase of \$92 million. As a basis for the Commission's decision to allow only 12% return on equity, the order cited the Federal Energy Regulatory Commission's "benchmark," [27] which at that time was 12.23%, and recent Louisiana cases in which the Commission had allowed rates of return on equity ranging from 11% to 13.5%. Gulf States sought injunctive relief from the order in the 19th judicial district, whereupon Judge William Brown issued a preliminary injunction granting the company a \$92 million first year rate increase and a 14% return on equity, and implementing a specific phase-in plan that provided for rate increases in four subsequent annual installments. The Commission is now appealing that part of the district court's decision which increased the rate of return on equity to 14%.[28] It contends that the court's erroneous

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term debt and preferred stock are fixed, and therefore subject to empirical verification, the cost of common equity is not fixed, since it reflects what an investor perceives as his level of risk. *Louisiana Power & Light Co. v. Louisiana Public Service Comm'n*, 523 So.2d 850 (La. 1988). In this case, the only dispute concerns Gulf States' cost of common equity.

[27] The "FERC benchmark" is an estimate of the nationwide average cost of common equity for public utilities.

[28] Notwithstanding its opposition to the court-ordered increase in the rate of return, the Commission is not challenging the first-year rate increase of \$92 million or the rest of the phrase-in plan adopted by Judge Brown. It suggests that although the plan improperly advanced the collection of some River Bend costs to the first year of the phase-in, the overcollection in the first year is offset by lower rate requirements in later years. Further, although Gulf States presented new evidence at the injunction hearing, a circumstance that would normally require a remand to the Commission for consideration of the evidence, see LSA-R.S. 45:1194, the Commission waived its right to a remand in this case, and thus that issue is not before us. It is the Commission's position, however, that the evidence received before the district court, even if assumed to be true, does not so alter the facts as to establish an unconstitutional confiscation.

ruling resulted in approximately $20 million in excess revenue collected by Gulf States from February 18, 1988 to March 1, 1989, when the Commission granted the utility an increase in its rate of return for the second year of the phase-in plan ordered by the district court.[29]

A. Public Service Commission's Position on Rate of Return

The Commission first argues that its 12% rate of return on equity was reasonable because it approximated the rate of return that Gulf States would require if it had not been imprudent. It contends that its decision reflects a determination that a utility's imprudence should not be permitted to trigger an offsetting recovery in its rate of return on equity, based on the increased risk resulting from its imprudence. The Commission asserts that such a determination is particularly appropriate in this case because it had already directly addressed the utility's risk in tempering its imprudence disallowance by $600 million (disallowing $1.4 billion rather than $2 billion). In addition, in setting rates for Gulf States, it had used a hypothetical capital structure with a 40% equity ratio, rather than the company's actual equity ratio of 35%. The Commission explains that the use of this hypothetical captial structure had the effect of offsetting some of Gulf States' special risk and increasing its actual return on equity to 12.9%.[30]

[29] On March 1, 1989, the Commission granted Gulf States a 13% rate of return on equity for the second period of the phase-in plan ordered by the district court. See Order No. U-17282-E. That order has not been appealed. Thus, the total amount in dispute in regard to the rate of return issue in this case is the approximately $20 million in revenues collected by Gulf States as a result of being accorded a 14% rather than a 12% return on equity during the year between the district court's injunctive order on February 18, 1988, and the Commission's order of March 1, 1989.

[30] This increase results from two factors: 1) equity is more expensive than debt because the equity investor demands a larger

The Commission refers to testimony by both its own consultants, Dr. Jay Kennedy and Lane Kollen, and Gulf States' expert, Dr. Charles Olson, that their respective recommendations concerning rate of return on equity were heavily influenced by the special risk presented by the utility,[31] a risk that resulted in part from its decision to restart River Bend. The Commission contends that the higher rates of return recommended by these consultants would reward Gulf States for its own imprudence. It further argues that its ruling reflects a fair balance of investor and ratepayer interests, and that under Louisiana law, it has broad authority to use its expertise and judgment in establishing a rate of return on equity for a regulated utility. It notes that in the case of *Louisiana Power & Light Co. v. Louisiana Public Serv. Comm'n*, 523 So.2d 850 (La. 1988), this Court upheld the Commission's finding that a 12% rate of return on equity was reasonable, despite the opinions of expert witnesses that a higher rate of return should have been granted. The Commission argues that although its decision deviated

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return on his investment to offset his greater risk, and 2) interest paid on debt is deductible for tax purposes, whereas dividends are not. *South Central Bell Telephone Co. v. Louisiana Public Serv. Comm'n*, 373 So.2d 478 (La. 1979).

[31] Dr. Kennedy performed a discounted cash flow of five companies comparable in risk to Gulf States, and calculated that the "risk premium" for those companies—the incremental cost of equity over their cost of debt—was 3.21%. He then added that premium to Gulf States' cost of debt to produce a rate of return on equity of 13.76%, which he rounded up to 14%. Dr. Olson also performed a discounted cash flow based on a group of selected utilities, which indicated that a rate of return of 12.97% to 13.47% was required to attract capital investment. He then increased that rate to allow for the special risk faced by Gulf States and for marketing costs, concluding that the company should be granted a return on equity of 15% to 15.5%. The Commission also notes that had Dr. Olson used his most recent data concerning growth rates of such factors as earnings, dividends, and book value, his resulting investor return requirement before upward adjustment for risk would have been 11.99%.

from the recommendations of experts in this case, that decision was reasonable in light of the evidence they presented. Dr. Kennedy testified that rates of return for utilities without special risks were falling in the 11.25 to 12% range, and cited the FERC benchmark as illustrative of that point. The Commission contends that it could reasonably choose to allow a rate of return at the high end of the range generally allowed utilities at the time, one consistent with recent allowances in Louisiana, rather than rewarding Gulf States for risk resulting from its own improper actions.

The Commission also argues that a 2% increase in the rate of return on equity is not the type of ruling that should be made in an injunction proceeding. It reasons that the district court did not rule that a 12% rate was confiscatory, and that therefore the increase was the kind of fine tuning that should occur only after plenary review. The Commission cites cases involving rate increases in which this Court has found injunctive relief to be inappropriate if the rate granted was not confiscatory,[32] and contends that the principles embodied in those cases as they relate to requests for rate increases have been recently upheld in *South Central Bell Telephone Co. v. Louisiana Public Serv. Comm'n*, 555 So.2d 1370 (La. 1990).[33] Finally, the Commission contends that if in-

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[32] The cases cited are *South Central Bell Telephone Co. v. Louisiana Public Serv. Comm'n*, 334 So.2d 189 (La. 1975) and *South Central Bell Telephone Co. v. Louisiana Public Serv. Comm'n*, 340 So.2d 189 (La. 1976).

[33] The Commission vehemently denies that this case falls within the exception for rate *decrease* cases established in *South Central Bell*. It argues that this is instead a mammoth rate *increase* case. The Commission did not lower previously approved rates, but instead raised them to a level nonetheless perceived as inadequate by the company. It contends that the fact that a lower rate of return on equity (than that which had been permitted on the pre-River Bend rate base) was used in setting the higher rates does not change the proceeding into a rate decrease case, and is therefore irrelevant under *South Central Bell*.

deed it was necessary to grant Gulf States a $92 million rate increase in the first year to avoid a financal crisis, the district court could have accomplished its objective without disturbing the rate of return on equity, simply by increasing the first year rate relief and adjusting downward the required deferral.

B. Attorney General's Position on Rate of Return

The Attorney General also asks that the increase in return on equity be set aside, albeit on different grounds. He notes that demands for injunctive protection have become a regular feature of appeals by Louisiana utilities from rate orders of the Public Service Commission. The Attorney General ascribes this trend to the fact that the utilities bear the burden of "regulatory lag": that is, if the reviewing process ends in a determination that the rate authorized by the Commission was too low, the utility will have lost the opportunity, during the period of review, to charge the higher rate that should have been authorized. He notes that courts and commissions normally do not protect utilities from the effect of regulatory lag because, in combination with the policy against retroactive ratemaking, it provides an incentive for efficient management.[illegible] He argues, however, that these tools are crude and inefficient, and deny the Commission and courts the flexibility to recognize the unusual circumstances that would in fact justify an allowance to offset past deficiencies or excesses of earnings. He urges this Court to restore that flexibility by allowing departures from the prohibition against retroactive ratemaking when it is warranted following a full plenary review.

[illegible] The Attorney General explains that if a utility could expect rates to be adjusted as soon as earnings begin to deviate from the fair return level currently fixed by the regulator, [illegible] that the losses incurred in one year would be [illegible] in the next, or the profits earned above the fair rate [illegible] the regulator taken away by the next order, there would be no reason for the utility to manage efficiently.

He concludes that were the Court to do so, the problem presented by frequent utility requests for injunctive relief would be largely resolved. The Attorney General therefore asks that we reverse the district court in finding that injunctive relief was appropriate, and remand to the Commission with instructions as to the recalculation of rates charged under the injunction and orders to make any adjustments necessary to provide earnings which are fair to both the utility and its customers.

C. Gulf States' Position on Rate of Return

In its argument in support of Judge Brown's injunctive order, Gulf States first notes that the ruling was consistent with the testimony of both the Commission's and the company's consultants. It emphasizes that the Commission's expert, Dr. Kennedy, unequivocally denied that Gulf States was comparable to the utilities on which the FERC benchmark of 11.3% was based. Dr. Kennedy also stated that "it would not be appropriate for an investor to invest in Gulf States if you said that its prospect was for . . . a 12% rate of return."

The utility also argues that, given its precarious financial condition in mid-1987, there is nothing in the record that even remotely suggests that a 12% return on equity was appropriate. Instead, the company contends, on the same day that the Commission decided the rate case, granting it a 12% rate of return on equity, Commissioner Lambert handed the Commission Secretary a document entitled "FERC benchmark return on equity report." It notes that this report was never made a part of the record, which at that time had been closed for two months, and was never identified or sponsored as an exhibit by any party or witness during the hearings before the Commission. Copies of the report were not circulated to the parties or other Commissioners, and no questions were asked concerning it or its contents. Gulf States argues that it was therefore afforded no opportunity to contest the document's applicability to the com-

pany's actual cost of capital. It contends that a decision based on a "surprise document," which was never entered into evidence, and which was contradicted by the testimony of the Commission's own expert witnesses, amounts to a complete deprivation of the company's due process rights.

Gulf States maintains that its position is analogous to that of the utility in *South Central Bell Telephone Co.* v. *Louisiana Public Serv. Comm'n*, 555 So.2d 1370 (La. 1990). In that case, this Court upheld the district court's injunction order on the basis that 1) the utility had a reasonable chance of prevailing on the merits of a 14% rate of return, given the Commission's violation of due process in its decision to impose a lower rate; 2) in view of the prohibition against retroactive ratemaking, the utility would suffer an irretrievable loss of millions of dollars; 3) the ratepayers were protected by their right to a refund;[35] and 4) the rate to be changed had been in effect for several years. Gulf States maintains that, in view of the Commission's violation of its due process rights, it too has a reasonable possibility of prevailing on the merits of the increase in rate of return; it would have irretrievably lost $1.7 million per month if no injunction had issued; its ratepayers are protected by the constitutional refund provision; and a 14% return on equity (on pre-River Bend rates) had been in place for at least two years before the Commission adopted the 12% rate of return here.

Finally, Gulf States contends that, by its very terms, the FERC benchmark is inapplicable to this case. The report's guidelines state that it is "advisory only." Further, the report expressly provides that one of the condi-

[35] La. Const. art. 4, § 21(D)(4) provides that:

> If a proposed increase which has been put into effect is finally disallowed, in whole or in part, the utility shall make full refund, with legal interest thereon, within the time and in the manner prescribed by law.

tions which will result in exclusion of a utility from its survey is a decrease or omission of a common dividend payment in the current or prior three quarters. Gulf States notes that it has been financially unable to pay a common dividend since June 1986, or event to meet its contractual obligations on its preferred stock since December 1986.

FINDINGS AND CONCLUSIONS REGARDING RATE OF RETURN

After a careful review of the record, the district court's reasons for judgment, the governing constitutional and statutory provisions, and the relevant jurisprudence, we conclude that the district court erred in increasing the utility's rate of return on equity from 12% to 14% in this injunction proceeding. As noted above, under article 4, section 21, of the Louisiana Constitution, the Public Service Commission has exclusive jurisdiction in the first instance to fix or change any rate to be charged by a public utility. It is well established in our jurisprudence that absent a showing of confiscation of property in violation of federal due process or state constitutional guarantees, courts should not afford interim injunctive relief from the Commission's rate determinations in rate increase cases. *South Cent. Bell Tel. Co. v. Louisiana Pub. Serv. Com'n*, 555 So.2d 1370 (La. 1990);[36] *South Cent. Bell Tel. Co. v. Louisiana Pub. Serv. Comm'n*, 340 So.2d

[36] Although the Court found in *South Central Bell*, 555 So.2d 1370 (La. 1990), that injunctive relief was appropriate despite the fact that the utility had failed to establish an unconstitutional confiscation, that finding was based on the fact that it was a rate *decrease* case, initiated by the Commission. This exception to the general rule is not applicable to the case before us, which, although it involves a decrease in rate of return on equity, is without question a rate *increase case*.

1300 (La. 1976); *South Cent. Bell Tel. Co. v. Louisiana Pub. Serv. Comm'n*, 256 La. 497, 236 So.2d 813 (1970).[37]

The issue before a court in an injunction proceeding regarding rates, therefore, is not whether the Commission has failed to set valid rates and charges, or whether the rates set are likely to be adjusted upward after full judicial review. The latter inquiry would require a judicial evaluation of the merits of the rate increase, in advance of the full and orderly appellate review contemplated by our state constitution. Rather, the sole issue for judicial determination is whether a continued imposition of those rates has been indisputably shown to constitute confiscation of a utility's property. *South Central Bell*, 340 So.2d 1300 (La. 1976).

Since a rate order of the Commission will be disturbed on appeal when it is shown to be unreasonable, arbitrary, or capricious, a claim that such an order is confiscatory

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[37] In an exception to the jurisprudential rule developed in the line of cases cited above, this Court in *Louisiana Power & Light Co. v. Louisiana Pub. Serv. Comm'n*, 523 So.2d 850 (La. 1988), upheld an injunction in a rate increase case without specifically finding an unconstitutional confiscation. That case may perhaps be distinguished on its facts. The Commission's consultant had recommended, based on the utility's revenue deficiency, an $85.9 million rate increase, with $48 million ($45.9 million increase plus the financing charges on a $40 million deferral) entering the rate base immediately, and $40 million deferred until the following year. The Commission granted a $48 million rate increase "based on the consultant's recommended phase-in," but failed to establish the $40 million deferral. The Court concluded that the Commission's order reflected both a finding that the utility was entitled to an $85.9 million increase, and an intent to implement its consultant's phase-in plan. Under those circumstances, it held, the district court's issuance of a temporary injunction establishing the deferral had not been erroneous.

In any event, this Court, in opinions preceding and succeeding the *Louisiana Power & Light* case, has affirmed that in rate increase cases, an unconstitutional confiscation must be shown before injunctive relief can be afforded. *See South Cent. Bell v. Louisiana Pub. Serv. Com'n*, 340 So.2d 1300 (La. 1976); *South Cent. Bell Tel. Co. v. Louisiana Pub. Serv. Comm'n*, 555 So.2d 1370 (La. 1990).

and therefore warrants injunctive relief, must necessarily meet an even higher standard of proof. That is, to be confiscatory, an order must not only fall outside of the Commission's wide discretionary authority, but also beyond the constitutional bounds of fairness and equity. The seminal case of *Federal Power Comm'n v. Hope Natural Gas*, 320 U.S. 591 (1944), is often cited for its articulation of the investor interests which should be accommodated in a rate order:

> [T]he return to the equity owner should be commensurate with return on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The *Hope* decision also made clear, however, that these legitimate investor interests are to be balanced against the interest of the ratepayers in non-exploitive rates, and that there are conditions under which a return on equity that would not meet the enumerated investor interests would be permissible.

In a later case, *In Re Permian Basin Rate Cases*, 390 U.S. 747, 770, the Court, citing *Hope*, stated:

> There can be no constitutional objection if the Commission, in its calculation of rates, takes fully into account the various interests which Congress has required it to reconcile. . . . [S]uch rates . . . intended "to balanc[e] . . . the investor and consumer interests," are constitutionally permissible. *FPC v. Hope Natural Gas Co.*, supra at 603.

In *Gulf State Utilities Co. v. Louisiana Public Service Comm'n*, 364 So.2d 1266, 1272 (La. 1978), this Court stated that in reviewing the Commission's orders,

> the court must determine whether the order may reasonably be expected to maintain financial integ-

> rity, attract necessary capital, and fairly compensate investors for the risks they have assumed, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable. The court's responsibility is not to supplant the Commission's balance of these interests with one more nearly to its liking, but instead to assure itself that the Commission has given reasoned consideration to each of the pertinent factors. (quoting *In Re Permian Basin Rate Cases*, 390 U.S. at 791-92).

See also *Jersey Central Power & Light Co. v. FERC*, 810 F.2d 1168 (D.C. Cir. 1987) ("Thus it is that a taking occurs . . . when the balance between investor and rate-payer interests—the very function of utility regulation—is struck unjustly.") (Starr, J., concurring); *Pennsylvania Elec. Co. v. Pennsylvania Pub. Util. Comm'n*, 509 Pa. 324, 502 A.2d 130 (1985); J. Tomain & J. Hickey, Jr., *Energy Law & Policy* 195 (1989).

Thus, to determine that, in this case, the Commission's order granting a 12% return on equity constituted confiscation of Gulf States' property, we would have to find that it was the result of deliberations in which the Commission failed to consider the legitimate interests of the utility and its investors in a higher rate of return, and to weigh those interests against the competing concerns of the ratepayers. No such finding was made by the district court. Nor do we find so here.

While it is true that both Gulf States' and the Commission's consultants recommended a higher rate of return based on their perceptions of the utility's special risk, it is also true that "a regulatory body such as the Commission is entitled to use its own judgment in evaluating evidence concerning a matter within its own expertise, and is not bound even by uncontradicted opinion testimony of experts." *South Central Bell Telephone Co. v. Louisiana Public Service Comm'n*, 373 So.2d 478, 486 (La. 1979) (citing *Baton Rouge Water Works Co. v.*

Louisiana Public Service Comm'n, 342 So.2d 609 (La. 1977). In this case the Commission has chosen to accord Gulf States a rate of return which does not reflect the extra risk it faces as a result of its own imprudence. Under the circumstances, we cannot say that this decision reflects the kind of constitutionally unreasonable balance between investor and ratepayer interests which would justify the exceptional remedy of interlocutory injunctive relief.

In regard to the Attorney General's argument urging us to modify the judicial policy prohibiting retroactive ratemaking, we find no compelling reason to change the jurisprudence, recently reaffirmed by this Court,[38] on that issue.

DECREE

For the reasons set forth, the district court judgment in No. 90-CA-0445 upholding Order No. U-17282-C of the Public Service Commission, which found Gulf States' 1979 decision to restart River Bend to have been imprudent, and which disallowed \$1.4 billion of the utility's investment in the nuclear plant, is affirmed.[39] That part

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[38] See *South Central Bell Telephone Co. v. Louisiana Public Serv. Comm'n*, 555 So.2d 1370 (La. 1990); *Louisiana Power & Light v. Louisiana Public Serv. Comm'n*, 523 So.2d 850 (La. 1988).

[39] In his dissent, Justice Dennis identifies three "legal errors" committed by the Commission in its application of the prudent investment rule. He first argues that the Commission failed to recognize that it must overcome a presumption of prudence before the burden shifts to the utility to prove the prudence of its investment in River Bend. Although the Commission, in its majority opinion, does not specifically discuss the burden of proof, the procedure which was followed in this case is consistent with an initial presumption of prudence, and with that employed by other public service commissions around the country when confronted with rate increase requests of the magnitude involved here. The staff investigation of the planning process which led to Gulf States' decision to restart construction of the nuclear plant clearly produced sufficient evidence to raise a serious doubt about the prudence of that decision and to shift the

of the court's judgment ordering the implementation of a rate base exclusion plan is reversed and set aside. The judgment of the district court in No. 88-CA-0709 which granted a preliminary injunction increasing Gulf States' rate of return on equity from 12% to 14% during the first year of the phase-in plan is also reversed and set aside. The Commission will determine the appropriate time and manner in which the ratepayers will be reimbursed for the excess revenues collected by Gulf States as a result of the improper injunctive order.

AFFIRMED IN PART; REVERSED IN PART

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burden of proof to the utility, where, under the undisputed jurisprudence of this country, that burden then properly lay.

Justice Dennis next argues that "it is clearly evident from the commission's opinion" that its finding of imprudence relied substantially on deficiencies in Gulf States' planning process, rather than on an objective test of whether a reasonable utility manager could have made the same decision under the circumstances. That contention is directly refuted by the description in the opinion of the analysis which the Commission's consultants performed in order to objectively assess the kind of planning process which a prudent utility manager would have used during the relevant time period.

Justice Dennis' last argument is that the Commission applied, not a prudent investment test, but a test of whether the company followed the optimal strategy. An evaluation of Gulf States' decision-making process of necessity required a comparison of what a reasonable planner would have estimated the completion of River Bend to cost with the estimated cost of the available alternatives. However, the Commission's finding of imprudence did not rest on the fact that the company did not choose the least cost alternative, but rather on the finding that a reasonable planner, employing known economic assumptions and performing an appropriate economic analysis, would have been aware that the completion of River Bend would cost significantly more than other available options, and was therefore an uneconomic and costly choice, one which was in fact unreasonable.

SUPREME COURT OF LOUISIANA

No. 88-CA-0709
Consolidated With
No. 90-CA-0445

GULF STATES UTILITIES

versus

LOUISIANA PUBLIC SERVICE COMMISSION

[Apr. 5, 1991]

DENNIS, J., dissenting in part and concurring in part.

I respectfully dissent from the majority opinion and decree insofar as it affirms the Commission's imprudence disallowance. In my opinion, the public service commission, the district court and the majority of this court failed to recognize the constitutional limits and overtones of the "prudent investment" or "historical cost" rule. Consequently, the commission did not apply the rule correctly and consistently. For the same reason, my brethren did not scrutinize the issue closely as a constitutional and judicial question and failed to correct the legal errors committed by the regulatory agency.

The United States and Louisiana Constitutions protect utilities from being limited to a charge for their property serving the public which is so unjust as to be confiscatory. Duquesne Light Co. v. Barasch 109 S.Ct. 609, 615, 102 L.Ed.2d 653, 657 (1989); Covington & Lexington Turn-

pike Road Co. v. Sanford, 164 U.S. 578, 598, 17 S.Ct. 198, 205-206, 41 L.Ed. 560 (1896); FPC v. Natural Gas Pipeline Co., 315 U.S. 575, 585, 62 S.Ct. 736, 742, 86 L.Ed. 1037 (1942); FPC v. Texaco, Inc., 417 U.S. 380, 391-392, 94 S.Ct. 2315, 2392, 41 L.Ed.2d 141 (1974). If the rate does not afford sufficient compensation, the state has taken the use of utility property without paying just compensation and so violated the Fifth and Fourteenth Amendments, Id.; as well as Article I, § 4 of the 1974 Louisiana Constitution.

One valid basis for calculating the amount of capital upon which investors are entitled to earn a fair return is the "historical cost" or "prudent investment" precept. Under this rule, a utility is compensated for all prudent investments at their actual cost when made (their "historical" cost), irrespective of whether individual investments are deemed necessary or beneficial in hindsight. Duquesne Light Co. v. Barasch, 109 S. Ct. at 616; FPC v. Hope Natural Gas Co., 320 U.S. 591 (1944).

Although no single ratemaking methodology, such as the prudent investment rule, is mandated by the constitution, which looks to the consequences a governmental authority produces rather than the techniques it employs, Duquesne Light Co. v. Barasch, supra, it is clear that when a state regulatory agency uses the prudent investor rule to exclude a company's investment from its rate base and thus deprive it from earning a fair return thereon, questions of whether the agency has applied the rule fairly, consistently and properly are issues having constitutional overtones that ought to be scrutinized closely by a reviewing court. See Duquesne Light Co. v. Barasch, 109 S. Ct. at 617 ("[W]hether a particular rate is "unjust" or "unreasonable" will depend to some extent on what is a fair rate of return given the risks under a particular rate-setting system, and on the amount of capital upon which the investors are entitled to earn that return. At the margins, these questions have constitutional over-

tones.") ; see also Id. at 620 ("[W]hile 'prudent investment' . . . need not be taken into account as such in ratemaking formulas, it may need to be taken into account in assessing the constitutionality of the particular consequences produced by those formulas. We cannot determine whether the payments a utility has been allowed to collect constitutes a fair return on investment, and thus whether the government's action is confiscatory, unless we agree upon what the relevant 'investment' is. For that purpose, all prudently incurred investment may well have to be counted.") (Scalia, J., concurring).

The question of imprudence presented by this case is one of the most serious and most controversial regulatory issues that this court and the public service commission have ever confronted. Its disposition will affect the company and the customers who rely upon its energy service for decades to come. Moreover, this decision will impact all other regulated public services and the state's economy in both the short and long term. The issue is extremely complex and important.

Prudence is an old regulatory concept being put to new use. The frequency of use of the concept by state utility regulatory commissions has increased greatly in the last 10 years. The immediate occasion for most recent uses of prudence has been the turmoil in the electric utility industry: construction cost overruns in completed plants, abandonment of plants, and excess capacity. The Prudent Investment Test In The 1980s, p. iii, The National Regulatory Institute (1985).

Recent public discussions of prudence have often loosely referred to "the prudence of a nuclear power plant" or the "prudence of a cost overrun," as if an object or a cost were prudent or imprudent. In proper legal analysis, however, prudence always relates to a decision—or the absence of a decision where one is needed—such as a decision to construct a nuclear unit, to abandon a coal

unit, or to use certain construction management practices. Id.

Review of the Supreme Court decisions and the recent state commission applications of the prudence standard suggests four guidelines for fair and coherent use of the prudent investment test. First, there is a presumption that each investment decision by a utility was prudent. The presumption of prudence can be overcome, however, by substantial evidence creating a serious doubt about the prudence of the investment decision. Second, if the presumption is overcome, the question presented to the regulatory commission is whether the utility's investment decision was reasonable in light of all conditions and circumstances which were known or which reasonably should have been known at the time the decision was made. Id. at 58; Re Boston Edison Co., 46 PUR 4th 431 (Mass. DPU, 1982). Third, a corrollary to the standard of reasonableness under the circumstances is a proscription against the use of hindsight in determining prudence. It is fundamentally incorrect for a commission to supplement the reasonableness standard for prudence with other standards that look at the final outcome of a utility's decision, though consideration of outcome may legitimately be considered as evidence in determining whether the presumption of prudence has been overcome. Fourth, the determination of prudence must be based on a retrospective, factual inquiry. The evidence should be retrospective in that it must be concerned with the time at which the utility made the decision in question. The evidence must tend to prove factual circumstances, not mere opinions, relevant to whether a reasonable decision-maker would have viewed the utility's choice as imprudent at the time it was made. The Prudent Investment Test in the 1980s, supra at 58; See Duquesne Light Co. v. Barasch, 109 S.Ct. 609, 616 (1989) ("Under the prudent investment rule, the utility is compensated for all prudent investments at their actual cost when made (their "his-

torical" cost), irrespective of whether individual investments are deemed necessary or beneficial in hindsight.")

The public service commission concluded that the company was imprudent in its decision to restart the River Bend 1 nuclear unit in early 1979; that the company should have instead constructed a lignite coal unit which would have resulted in lower costs to ratepayers. The commission's conclusions were based on findings by its staff that: the load forecasting process employed by Gulf States during the restart period was unreasonable, unreliable and inaccurate; the company's economic and financial evaluations were flawed and unreliable; the staff's experts forecast a significantly lower growth rate of energy load or demand than that projected by the company; the staff's experts' concluded that units using scrubbed and unscrubbed lignite were viable options to restarting the Riverbend nuclear unit; one of these experts, using a least-cost evaluation technique, concluded that a lignite fueled-fossil unit would have been the best economic choice. Consequently, the commission calculated that the additional cost of building the nuclear unit instead of a lignite unit required it to assess an imprudence disallowance of $1.4 billion against the company and to exclude this part of the company's investment from the rate base.

In my opinion, the commission fell into serious legal errors in its application of the prudent investment rule that may have resulted in a confiscatory and unconstitutional taking of the company's property. Although the commission, for the most part, stated the rule correctly in its opinion, it disregarded the cardinal principles of the rule and proceeded to make its determination of imprudence in a confused and undisciplined manner. Essentially, the commission erred when it failed to: (1) recognize that the burden of proof rests with the commission, staff, or other interested party to show that the utility's decision should not be presumed to be prudent and to re-

quire that the prudence of an investment decision should be examined until the presumption of prudence is rebutted; (2) judge whether the investment decision was imprudent on the basis of an objective test of whether any prudent utility manager could have made the same decision under the circumstances, rather than basing it substantially on the errors, omissions or deficient techniques of the company's managers; and (3) correctly apply the prudent investment test, rather than a test of whether the optimal or least-cost strategy was followed, thus losing sight of the fact that the commission's function is not necessarily to require that the "best" investment decisions be made and that the commission is required to distinguish between the less-than-optimal investment decision that still may be prudent and the truly imprudent investment decision. See The Prudent Investment Test In The 1980s, supra at 93-96.

The first error is easily demonstrated. The commission's opinion is devoid of any suggestion that it accorded a presumption of prudence to the company's investment decision. Instead, the commission appears to have done just the opposite by assuming that restarting Riverbend 1 in 1979 was imprudent and then setting out to prove it.

The second error is also clearly evident from the commission's opinion. The first subject the commission addressed in its opinion with respect to prudence was its staff's review of the company's planning process in arriving at its decision to restart River Bend 1. The commission apparently considered this to be the most important factor indicating imprudence. In this portion of the opinion, the company's planning process is taken to task for a number of errors, omissions and inadequacies. But the mere fact that Gulf State's techniques or methods were deficient does not mean necessarily that any prudent utility planner charged with the knowledge of a reasonably competent manager would have decided against restarting River Bend 1. Indeed, Gulf State's alleged fail-

ings are simply not relevant to a determination of whether any reasonable or prudent manager would have decided to invest in Riverbend 1 in early 1979, which, in essence, was the only prudence question before the commission. As the commission itself recognized later in its opinion, "the decision may still have been the right one, given the facts known or knowable within the context of the circumstances [making it] therefore necessary for the Staff to independently reconstruct a prudent planning process within the . . . restart decision period to determine whether the decision to restart River Bend 1 was reasonable despite the Company's deficient planning process."

The Commission's third major error stems from a confusion of its function as a regulatory agency in making a prudence determination with the role of a utility planner in making a "least-cost" evaluation to choose the "best" investment decision. In its opinion, the Commission relied on its staff's reconstruction of facts known and knowable at the time the company made the investment decision in question. Regarding load forecasting, the staff reported that one expert had forecast a growth rate from 1978 to 1985 significantly lower than that which the company had projected in 1978; that this projected a difference in load for 1985 of 850 mw, a difference greater than the company's share of the River Bend 1 unit. But other than this spare statement the Commission does not explain how the expert's retrospective forecast indicates imprudence rather than less-than-optimal investment. With respect to generation expansion, the staff reported that two experts had each concluded separately that a particular type of lignite unit would have been a "viable alternative" to restarting River Bend 1 in early 1979. Again, however, the Commission fails to articulate any reasons why the existence of other "viable options" necessarily indicates that the company's investment decision was imprudent or even less-than-optimal. In the area

of economic and financial analysis, the staff employed a consultant who utilized a "Risk Analysis Model", apparently a least-cost evaluation technique, to conclude that "a reasonable man, employing known economic assumptions and levelized busbar cost techniques, would have expected a lignite unit to cost much less to own and operate than a nuclear plant [and that] the levelized expected annual cost of the lignite unit was $484 million compared to $548 million for River Bend 1, an annual difference of $64 million." Or, as the Commission concluded, "the lignite unit was the lower cost option." For the third time, however, the Commission failed to indicate how the record factual evidence as explained by the expert's opinion shows that the company's investment decision was so bad that it would not have been made by any reasonable decisionmaker, rather than simply suggesting that hypothetically a different decision would have been better or optimal. In fact, the Commission expressly finds in its opinion that the expert's testimony indicates only that replacement of River Bend 1 with "a lignite unit was the more reasonable and appropriate choice to meet [the company's] long term generation requirements." This and the other findings, and apparently all of the evidence of record, fall short of a convincing showing that no prudent manager would have made the investment decision to restart River Bend 1 in early 1979.

There is a reasonable possibility that any of these errors could have skewed the Commission's prudence determination, and it is substantially certain that the combination of all three errors prejudicially distorted the agency's decision. Furthermore, none of the errors can be disregarded, because each played a crucial part in the Commission's decision. The agency's disregard of its burden of overcoming the presumption that the investment was prudent allowed the Commission to begin the prudence inquiry without showing that it was properly

called for. After improperly commencing and conducting the inquiry, the Commission expressly relied on both its irrelevant finding of company fault in planning and the experts' finding that the investment was less desirable than other viable options, in tandem, as a basis for concluding that the investment decision was imprudent.

In reality, the rule actually applied in this case bears little resemblance to the "prudent investment" rule. Perhaps an apt descriptive title for the rule actually applied by the Commission would be the "successful investment" rule. For, in actual operation, the Commission's rule is that if the company makes an unsuccessful investment, it enjoys no presumption of prudence as a shield or a threshold to raise against a prudence inquiry, and the company's investment will be disallowed as imprudent if the Commission finds significant fault with its planning techniques and if it can be shown that the company could have made a better investment decision. In effect, the commission's approach is little different from determining "whether individual investments are deemed necessary or beneficial in hindsight," an inquiry expressly eschewed by the prudent investment rule. See Duquesne Light Co. v. Barasch, 109 S.Ct. at 616.

The combination of legal errors resulting in the Commission's misapplication of the prudent investment rule requires that this court reverse the Commission's prudence disallowance and remand the case to that agency for a new determination of that question following correct principles of law. When there is warrant in the record and a valid basis in law for the Commission's determination, this court should give due deference to the agency's decision. But when the agency's decision is based on legal error, as in this case, its determination is due no deference and should be reversed. For it is exclusively the prerogative of the courts to say what the law means, and the Commission is required to obey the law.

I respectfully suggest that my colleagues in the majority and on the district court have given undue and misguided deference to the Commission's determination that the company's investment decision was imprudent. They have disregarded the Commission's legal errors made in misapplying the prudent investment rule that appear plain on the face of the agency's opinion. Further, they have gone beyond the findings made by the Commission in its opinion to search for evidence in the record to reinforce an administrative determination fraught with legal error. In effect, my colleagues have inadvertently reversed roles with the Commission: the agency is allowed to say what the law is and how it should be applied while the court is relegated to the task of reviewing the record, weighing the evidence and articulating the reasons to justify the imprudence disallowance.

I agree that more than ordinary scrutiny should be given the record by the court in this case, but not for the purposes to which it has been applied by my brethren. When a regulatory agency excludes a utility's investment from the rate base as having been made imprudently, thus depriving it of any return thereon, there is cause to be concerned that the state in effect may have taken property without due process and adequate compensation. Accordingly, because of the constitutional overtones of a prudence disallowance, which always presents the risk that due process limits may have been exceeded, a reviewing court ought to scrutinize the record closely to ascertain whether a constitutional violation has occurred. Moreover, although a court should never substitute its judgment for the Commission's on whether a particular investment decision was prudent, courts are generally more competent to review prudence disallowances than many other regulatory determinations. The "prudent or reasonable man" concept is applied by the courts everyday in many complex areas of the law. For example, in negligence, products liability, mineral rights, trusts, and estate management cases judges are continually called upon

to decide whether persons making complicated and difficult decisions have done so within the range of prudence or reasonableness. See The Prudent Investment Test In The 1980s, supra at iii, 39. A judicial review of the prudence determination in a public utility case, as in other legal fields, requires the court to contemplate only the broad gauge question of whether any reasonable or prudent manager could have made the investment decision in question. The prudence determination and the review of it do not require the depth of knowledge, acumen or perfection in decision as do many other regulatory decisions, such as fixing the rates of return, the cost of capital, the cost of debt, the cost of preferred stock, the cost of common stock and others.

I am very concerned about the company's protest that it was denied due process of law in that the elected commissioners did not see to it that the actual evidence in the case be made available to them but chose to receive only summaries prepared by trial counsel adverse to the company. At the present time I am under the impression that the majority opinion is correct that the company did not object to the manner of the hearing, including use of the summaries by the commission, but acquiesced therein, that any impropriety was further ameliorated by the commissioners' reliance on non-adversarial law-clerk type assistants to attend and report to them on the hearings, and that much of the record consisted of prefiled testimony which was available to the commissioners. If I am mistaken about the nature of the hearing or the company's acquiescence therein I look forward to being informed of my error in the inevitable application for rehearing. On the other hand, I do not agree with the majority opinion's suggestion that the company was not entitled to a trial type hearing or its equivalent on the imprudence disallowance simply because this is a regulatory rate case.

In all other respects I concur in the majority opinion.

SUPREME COURT OF LOUISIANA

No. 88-CA-0709

Consolidated With

No. 90-CA-0445

GULF STATES UTILITIES

versus

LOUISIANA PUBLIC SERVICE COMMISSION

[Apr. 5, 1991]

COLE, Justice, dissenting.

I respectfully dissent from the majority opinion. Insofar as it affirms the Commission's imprudence disallowance, I dissent for the reasons expressed by Justice Dennis. The Commission indeed "disregarded the cardinal principles of the [prudent investment] rule and proceeded to make its determination of imprudence in a confused and undisciplined manner." Opinion of Dennis, J., dissenting in part and concurring in part at ——.

Moreover, I am gravely concerned about the cavalier manner in which the Commission jettisoned the presumptively prudent [1] business decision to restart River Bend I. "The potential misuse of the broader legislative and

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[1] *See Missouri ex rel Southwestern Bell Tel. Co. v. Public Service Comm.*, 262 U.S. 276, 289 n.1, 43 S.Ct. 544, 547 n.1, 67 L.Ed. 981 (1923) (Brandeis, J., concurring).

administrative authority to set lower utility rates is especially worrisome because government figures often use utility ratemaking for political purposes."[2] Drobak, *From Turnpike to Nuclear Power: The Constitutional Limits on Utility Rate Regulation*, 65 B.U. L. Rev. 65, 125 (1985). Despite the populist allure of the Commission's decision, it should be remembered that

> [h]arm to the investor interest, which will benefit consumers in the short run, can cause even greater long-term harm to the public. Excessively low utility rates can make obtaining new capital prohibitively expensive, they can induce utilities to defer needed construction projects until the utilities receive adequate assurances that investors will not bear most of the risks, and low rates can lead to a decrease in the quality of the utilities' services.

Drobak, supra, at 124-25.

The Commission is bound to obey the law as interpreted by this Court. However, the Commission's decision was derived through a process fraught with legal error. Its determination, therefore, is not due the deference accorded by the majority. That deference is compelled only when the record justifies it and there is a valid basis in law for the Commission's decision. As Justice Dennis has demonstrated, neither existed in this case.

I am further troubled by the lack of due process accorded Gulf States by the Commission. The Commissioners did not hear personally all the testimony. The actual evidence in the case was not made available to them; rather, they relied upon summaries prepared by trial counsel *adverse to Gulf States*. The majority sweeps aside these procedural deficiencies, noting that one Commissioner and representatives of the other Commissioners

[2] Louisiana is unlikely to be immune from such an affliction.

frequently attended the hearings and that Gulf States *made no objection* "at that time" to the use or the accuracy of the summaries. One could scarcely deem this to be the sort of impartial decision-making envisioned by the ratifiers of the Fourteenth Amendment.

"In the civil area, the [Supreme] Court [of the United States] has said that '[w]e do not presume acquiescence in the loss of fundamental rights[.]'" *Fuentes v. Shevin*, 407 U.S. 67, 94 n.31, 92 S.Ct. 1983, 2001 n.31, 32 L.Ed.2d 556 (1972) (quoting *Ohio Bell Tel. Co. v. Public Utilities Comm'n*, 301 U.S. 292, 307, 57 S.Ct. 724, 731, 81 L.Ed. 1093 (1937)). "Indeed, in the civil no less than the criminal area, 'courts indulge every reasonable presumption against waiver.'" *Fuentes*, 407 U.S. at 94 n.31, 92 S. Ct. 2001 n.31 (quoting *Aetna Ins. Co. v. Kennedy*, 301 U.S. 389, 393, 57 S.Ct. 809, 812, 81 L.Ed. 1177 (1937)). As a general proposition, constructive consent is not a doctrine commonly associated with the surrender of constitutional rights. *Cf. Edelman v. Jordan*, 415 U.S. 651, 673, 94 S.Ct. 1347, 1360, 39 L.Ed.2d 662 (1974) (state's constructive consent to suit in federal court).

As courts are properly loath to imply waivers of constitutional rights, I cannot agree with the suggestion of the majority that Gulf States impliedly waived its rights in this proceeding. The cloak of protection of the due process clause of the Fourteenth Amendment is not so threadbare as to leave Gulf States to the whim and caprice of a governmental body whose interests are perhaps at ods with its own.

Because the Commission failed to accord Gulf States the process it was due, and because the Commission erred grievously in concluding Gulf States acted imprudently when it decided to restart River Bend I in 1979, I dissent.

APPENDIX B

Denial of Petition for Rehearing by the Supreme Court of Louisiana (June 20, 1991)

[STATE SEAL]

SUPREME COURT
STATE OF LOUISIANA
New Orleans

Chief Justice
Pascal F. Calogero, Jr.

Associate Justices
Walter F. Marcus, Jr.
James L. Dennis
Jack Crozier Watson
Harry T. Lemmon
Luther F. Cole
Pike Hall, Jr.

Clerk of Court
Frans J. Labranche, Jr.

301 Loyola Ave., 70112
Telephone 504 568-5707

June 20, 1991

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Vernon Middleton, Esq.

Michael Fontham, Esq.
Paul Zimmering, Esq.
Noel Darce, Esq
Stone, Pigman, et al.

Frank Uddo, Esq.
Eilzabeth Porter
Uddo, Porter, et al

Henry Macnicholas, Esq.
Attorney at Law

J. David McNeill, III, Esq.
Assistant Attorney General

Hon. William J. Guste, Jr.
Attorney General

John Avant, Esq.
Floyd Falcon, Esq.
Avant & Falcon

Robert Rieger, Jr., Esq
Attorney at Law

Richard Lorenzo, Esq
Attorney at Law

Theodore Jones, Esq.
Elizabeth Amos
Jones & Amos

Lee Kantrow, Esq.
Richard Zimmerman, Esq
Kantrow, Spaht, et al

Richard Troy, Esq.
Assistant Attorney General

James Field, Esq.
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James Holliday, Jr., Esq.
McCollister, McCleary & Fazio

Brad Bazert, Esq.
Attorney at Law

Re: Gulf States Utilities Co. vs. Louisiana Public Service Comm. No. 88-CA-0709 C W Gulf States Utilities Co. vs. Louisiana Public Service Comm. c/w Gulf States Energy Users Group vs. Louisiana Public Service Comm. No. 90-CA-0445

Dear Counsel:

Enclosed please find a News Release documenting this court's denial of the application for rehearing, in the above entitled referenced case.

This judgment is now final. By copy of this letter we are advising the clerk of court of the finality of this case and instructing them to do whatever is necessary to implement the judgment.

With kindest regards, I remain,

Very truly yours,

/s/ Frans J. Labranche, Jr.
FRANS J. LABRANCHE, JR.
Clerk of Court

FJLJr:kf
Enclosure

ccs: Hon. Paul Landry, Judge Ad Hoc
Hon. William H. Brown, Chief Judge, 19th JDC
Hon. Philip Burt

SUPREME COURT OF LOUISIANA

FOR IMMEDIATE NEWS RELEASE NEWS RELEASE # 064

FROM: CLERK OF SUPREME COURT OF LOUISIANA

On the *20th day of June, 1991*, the following action was taken by the Supreme Court of Louisiana in the cases listed below:

REHEARINGS DENIED:

88-CA-0709 C/W 90-CA-0445 GULF STATES UTILITIES COMPANY V. LOUISIANA PUBLIC SERVICE COMMISSION (Parish of East Baton Rouge)
Two Applications
DENNIS, LEMMON & COLE, JJ.—would grant a rehearing on Gulf States Utilities' application.

90-C-2249 C/W 90-C-2256 EDGAR C. MELTON V. GENERAL ELECTRIC ENVIRONMENTAL COMPANY, INC., ET AL. (Parish of St. Bernard)
Two Applications
CALOGERO C.J., MARCUS & LEMMON, JJ.—would grant a rehearing.
MARCUS, J.—would grant a rehearing to reconsider our holding in Mary Guidry et al v. Frank Guidry Oil Co., et al, 91-C-0078 c/w 91-C-0111 (La. 1991), and in this case.
HALL, J.—concurs in the denial of rehearing because the result is correct in that there was no evidence of employer fault, but disagrees with the majority opinion insofar as it holds that employer fault should not ordinarily be quantified by the trier of fact.

APPENDIX C

Judgment of the Nineteenth Judicial District Court of the State of Louisiana (October 11, 1989)

NINETEENTH JUDICIAL DISTRICT COURT
PARISH OF EAST BATON ROUGE
STATE OF LOUISIANA

Number 325,224

Division "I"

GULF STATES UTILITIES COMPANY

versus

LOUISIANA PUBLIC SERVICE COMMISSION

Consolidated With

Number 328,092

Division "I"

GULF STATES USERS GROUP

versus

LOUISIANA PUBLIC SERVICE COMMISSION

JUDGMENT:

This matter having come before the Court for trial on the merits, the Court having considered the evidence, and arguments and briefs of counsel for all parties, for written reasons this day rendered and filed herein:

IT IS ORDERED, ADJUDGED AND DECREED, that judgment be and the same is hereby rendered herein in favor of Defendant LOUISIANA PUBLIC SERVICE COMMISSION (COMMISSION), affirming the COMMISSION'S order declaring imprudent the investment of Plaintiff GULF STATES UTILITIES COMPANY (GSU) in GSU'S nuclear generation project known as RIVER BEND I (RB I).

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that judgment be and the same is hereby rendered herein in favor of Plaintiff GSU and against Intervenor the STATE OF LOUISIANA (STATE) affirming the COMMISSION'S allowance of $1.6B of the cost of GSU'S share of the Louisiana portion of RB I, and allowing recovery of said amount by inclusion thereof into GSU's rate base.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that judgment be and the same is hereby rendered herein against Plaintiff GSU, and in favor of Defendant COMMISSION and Intervenor STATE, affirming the COMMISSION order rendered herein disallowing $1.4B of the cost of GSU'S share of the Louisiana portion of RB I, and declining to allow said disallowance to be included in GSU'S rate base.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that judgment be and the same is hereby rendered herein ordering and directing the COMMISSION to implement the remaining three annual steps of the rate increase phase in plan ordered by the Court on February 18, 1988, awarding GSU rate increases of $50M

annually for the third and fourth steps and $37,740,000.00 for the fifth step.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that judgment be and the same is hereby rendered herein in favor of Plaintiff GSU and against Defendant COMMISSION and Intervenor STATE, ordering and directing the COMMISSION to implement the COMMISSION'S proposed deregulated asset in treatment of the disallowed $1.4B cost of RB I, as a source of possible future rate relief for GSU, in a manner not inconsistent with the views expressed in the Court's written reasons for judgment filed in this matter. Provided that, implementation of the deregulated asset plan shall not be contingent upon either the COMMISSION or GSU abandoning their respective rights of appeal from this particular ruling or any other ruling of the Court in this case.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that GSU'S CLAIM of unconstitutionality of the COMMISSION'S hearing and decisional procedure in this case, based on an alleged lack of due process, is found to be without merit and, accordingly, is overruled.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that this matter be and the same is hereby remanded to the COMMISSION for rendition of decision on the issue of rate allocation among customer classes. In this regard the COMMISSION is ordered and mandated to state its reasons for its decision and make findings of fact in support thereof. All rights are reserved to the COMMISSION to conduct such further proceedings in this regard as it may deem proper in its discretion.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that in implementing the remaining steps of the phase in plan herein ordered, the COMMISSION shall fix the rate based on a return on equity of 13%,

or such other percentage as the COMMISSION shall deem proper after hearing.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that the preliminary injunction issued herein on February 18, 1988, be and the same is hereby dissolved, and that this judgment shall be deemed the final judgment of this Court on all issues herein resolved.

IT IS FURTHER ORDERED, ADJUDGED AND DECREED, that all costs of these proceedings shall be paid equally by the COMMISSION and GSU.

Judgment read, rendered and signed in open court at Baton Rouge, Louisiana, this 11th day of October, 1989.

/s/ Paul B. Landry, Jr.
PAUL B. LANDRY, JR.
Judge Ad Hoc

(Filed Oct. 11, 1989)

NINETEENTH JUDICIAL DISTRICT COURT
PARISH OF EAST BATON ROUGE
STATE OF LOUISIANA

Number 325,224

Division "I"

GULF STATES UTILITIES COMPANY

versus

LOUISIANA PUBLIC SERVICE COMMISSION

Consolidated With

Number 328,092

Division "I"

GULF STATES USERS GROUP

versus

LOUISIANA PUBLIC SERVICE COMMISSION

REASONS FOR JUDGMENT

These matters involve appeals from LOUISIANA PUBLIC SERVICE COMMISSION (COMMISSION) Orders No. U-17282B, December 15, 1987, and Order No. U-17282C, January 26, 1988, granting plaintiff GULF STATES UTILTIES (GSU): (1) $63 million of a requested $202 million rate increase based on GSU's construction of its nuclear powered River Bend I (RB I)

generating plant; (2) a 12% return on equity (ROE); (3) allocating the granted increase on a kilowatt hour basis among all customer classes, and; (4) disallowing a rate increase for the cost of River Bend II (RB II), a nuclear generating plant commenced but cancelled by GSU.

Interventions were filed herein as follows:

1. GULF STATES ENERGY USERS GROUP (GSEUG), an unincorporated association of industrial firms served by GSU pursuant to various tariff schedules or riders.
2. LOUISIANA FOOD STORES GROUP (FOOD STORES) an association of four food store chains operating approximately 36 outlets purchasing high load power from GSU.
3. THE FEDERAL DEPARTMENT OF ENERGY (DOE) appearing through its Strategic Petroleum Reserve Organization.
4. THE STATE OF LOUISIANA (STATE), through the Honorable William J. Guste, Jr., Attorney General, State of Louisiana, and;
5. DOW CHEMICAL COMPANY (DOW), a Delaware corporation doing business in this State, a high volume consumer of GSU.

GSU initially appealed disallowance from its rate base of $1.4 billion of the $3 billion cost of RBI allocated to its Louisiana operation, the rate of return on equity granted by the Commission and allocation of the granted increase among all customer classes on a kilowatt hour basis. However, due to certain proceedings herein and action taken by the Commission, GSU's appeal is now limited to the COMMISSION'S rejection of GSU's proposed inventory plan for recovery of the $1.4 disallowed cost of RBI, rather than immediate recovery thereof by present inclusion in the rate base. GSU also appeals the

COMMISSION'S order allocating the increase on a kilowatt hour basis, and the phase in plan proposed by the COMMISSION for incorporating the granted rate increase in to the rate base.

All intervenors except the STATE appeal from the COMMISSION'S allocation of the granted increase on a kilowatt hour basis among all customer classes.

The STATE appeals the COMMISSION'S granting GSU a $1.6 billion rate recovery despite the Commission's finding that construction of RBI was an imprudent investment in that an alternative lignite unit could have been built at a great saving to ratepayers. The STATE concedes, however that GSU is entitled to a rate increase of $350 Million, the amount found by the Commission to have been prudently invested in RBI before continuation of the project was rendered imprudent by attending circumstances, plus the cost of cancelling the RBI project.

HISTORY OF THE CASE

In July, 1985, GSU applied to the COMMISSION for a $202 Million rate increase on a proposed overall return of 12.06% based on construction of RBI which was then under construction and which was anticipated to come on line within the one year period mandated for COMMISSION decision in rate matters. Due to construction delay, the COMMISSION rejected GSU'S application on June 4, 1986. GSU appealed but mooted its appeal by filing a new application on July 25, 1986. On August 26, 1986, GSU requested the COMMISSION to fix the effective commercial operation date of RBI as of June 16, 1986. At this juncture, GSU was in dire financial straits due to expenditure of all its available capital for RBI construction wherefore on September 8, 1986, GSU petitioned the COMMISSION for interrim relief of $100 which the COMMISSION denied. Because of its plight and also because the COMMISSION had not yet acted on

its request that RBI costs be included in its rate base, GSU appealed the matter to this Court.

Hearings in this Court resulted in a remand to the COMMISSION for further consideration. On remand the COMMISSION heard evidence and, on December 2, 1986, denied GSU's request for interrim relief and fixed the commercial operation date of RBI as of June 16, 1986, as requested by GSU. On December 2, 1986, the COMMISSION granted GSU an accounting order allowing deferral of all RBI costs for capitalization as an asset for future recovery consideration.

In January, 1987, GSU appealed denial of its interrim rate increase request, which matter was heard by this Court and again remanded to the COMMISSION for further consideration. On February 24, 1987, the COMMISSION granted GSU a $57 million interrim increase effective March 5, 1987, and a 12% return on equity. GSU appealed to this Court and reduced its requested increase from $202 million to $194 million. This interrim increase remained in effect until supplanted by subsequent COMMISSION order U-17282C issued January 26, 1988, hereinafter considered in some detail.

After fixing the interrim rate increase at $57 million, the COMMISSION heard the matter before its appointed Hearing Examiner, the principal issue being the question of prudency of the River Bend investments. Over a period of 40 days of hearings approximately 53 witnesses were called, several thousand pages of transcript were compiled and hundreds of exhibits entered in evidence. On conclusion of the hearings the Hearing Examiner made no findings of facts or conclusions of law or recommendations to the COMMISSION.

Upon closing the hearings which primarily addressed the issues of prudency of the River Bend investments and rate increase allocation and design among user classes, the matter was ultimately submitted to the COMMISSION for decision.

On November 19, 1987, while the matter was under consideration by the COMMISSION, GSU moved to defer final consideration of its application to allow all parties opportunity to explore possible rate base alternatives regarding RB I. The COMMISSION granted the motion and on November, 24, 1987, deferred final consideration until December 15, 1987, and directed all parties and its own counsel to explore permissible accounting practices which, in the event of disallowance of River Bend costs for imprudence, the COMMISSION might consider in determining whether future economic conditions would indicate the propriety of including the disallowed cost in the rate base.

Ensuing proceedings indicated that the COMMISSION'S staff would recommend a disallowance of $1.4B of RB I cost for imprudence. At a technical conference held December 3, 1987, GSU proffered alternative rate base exclusion plans, namely: (1) conversion of the proposed $1.4B disallowance to a not necessarily permanent exclusion, and; (2) acceleration of the RB I phase in rate increase schedule proposed by GSU at the hearings to enable GSU to immediately break even on a cash flow basis, GSU recognizing that immediate inclusion of the rate increase in full would work an unconscionable hardship on rate payers. The COMMISSION rejected both proposals.

On December 15, 1987, the COMMISSION issued its final Order No. U-17282B which:

1. Granted GSU an interrim increase of $57 million effective as of midnight that date and a net increase of $63 million thereafter
2. Found GSU imprudent in restarting RBI in early 1979, instead of building a less expensive lignite coal unit;
3. Excluded $1.4 billion of the $3 billion cost of RBI from the rate base;

4. Permanently disallowed cost of RBII from the rate base;

5. Awarded GSU a 12% return on equity notwithstanding its own experts recommended a 14% return, and;

6. Allocated the granted rate increase among customer classes on the basis of test year kilowatt hour sales solely on the ground that this method had been used in specifically mentioned prior cases and despite all expert witnesses having agreed that allocation of rates on a cost of service basis is the fairest method of rate allocation.

These present appeals immediately followed issuance of Order No. U-17282B.

On January 16, 1988, during pendency of these appeals before this Court, the COMMISSION issued what it denominated "Majority Opinion (in connection with Order No. U-17282C)" relative to the case at hand, which order reaffirmed the COMMISSION'S granting GSU a 12% return on equity and gave detailed reasons for disallowing part of the RBI investment for imprudence.

On GSU's appeal to this Court from the December 15, 1987, COMMISSION decision reflected in Order No. U-17282B, GSU requested injunctive relief which was granted by way of a preliminary injunction issued on February 18, 1988, ordering the COMMISSION to:

1. Grant GSU an immediate rate increase of $92 million; second, third and fourth year increases of $50 million each, and a 5th year increase of $37,740,000.00;

2. Award GSU tariff rates to produce a 14% return on equity based on GSU's capital structure as detailed in the previously mentioned majority opinion of January 16, 1988, and;

3. Grant GSU an immediately effected and implemented rate increase for the allowed cost of RBI.

The decision of this Court also retained the COMMISSION'S jurisdiction to change the rate allocation and design should the COMMISSION so desire and decrease the amount of rate increase ordered by the Court, for good cause after hearing.

GSU appealed this Court's judgment of February 18, 1988, to the State Supreme Court. By agreement among all parties, the Supreme Court was requested to defer consideration of this appeal pending final outcome of the prudence and allocation issues involved herein.

In the summer of 1988, this Court held approximately six weeks of hearings devoted primarily to the issues of prudency of River Bend investments and allocation of the mandated $92 million annual rate increase on a kilowatt hour basis among all customer rate classifications. This Court found that new evidence was presented on these questions and remanded the matter to the COMMISSION for further consideration of these points in the light of the new testimony.

On second remand, the COMMISSION heard additional testimony and on November 18, 1988, issued its Order No. U-17282-D which:

1. Granted GSU a 12.75% rate of return on equity which the COMMISSION deemed a return in excess of 14% on the actual prudent investment;
2. Found that its rate base exclusion plan for the disallowed cost of RBI, namely, the classification of this item as a deregulated asset, eliminated GSU's need to write off this cost and would materially aid GSU's financial plight;
3. Reaffirmed its decision to disallow recovery of all cost of RBII

4. Reaffirmed its decision to allocate the granted rate increase among all customer classes on a per kilowatt hour basis;

5. Made factual findings relative to the useful life of RBI; determined decommissioning costs of the unit value of the Louisiana retail portion thereof and noted that its prior orders regarding cost deferrals did not include decommissioning costs and further provided that decommissioning costs be funded over a 38 year period commencing in 1988;

6. Ordered a $3.6 million reduction in GSU rates if its rate base exclusion plan was accepted;

7. Approved the phase in plan ordered by this Court;

8. Approved the terms of its outlined rate base exclusion plan and the phase in plan associated with the phase in of the allowed recovery of RBI cost and the rate base exclusion plan approved by the Court subject to modification by the Commission.

At this juncture the COMMISSION called a conference of interested parties to determine the feasibility of accepting its proposed deregulation plan for treatment of RBI costs. The plan provided, inter alia, that if GSU accepted the plan and abandoned its efforts to have the disallowed cost made part of the rate base, the COMMISSION might later consider a treatment of the unregulated asset in a manner that would allow some recovery. At this conference the STATE dismissed its claim that total RBI cost be eliminated from the rate base and substituted the contention that the sunk cost of RBI as of early 1979, and cancellation cost of RBI be allowed as part of the rate base. The STATE also objected to the COMMISSION's proposed deregulation plan on the ground it could possibly result in a rate increase which

would be inconsistent with the COMMISSION'S finding of imprudence, with which decision the STATE agreed.

GSU opted to reject the COMMISSION'S proposed deregulation plan on the ground that, in view of the STATE'S insistence upon disallowance of all RBI costs except sunk costs and cancellation costs, it could not risk the possibility of losing its appeal on the disallowance issue and thus jeopardize loss of the major portion of the COMMISSION allowed $1.6 billion recovery. GSU indicated that but for the STATE'S position, regarding the issue, it would have accepted the COMMISSION'S proposed deregulation plan and have abandoned its appeal of the $1.4 billion disallowed cost of RBI.

In lieu of the COMMISSION'S proposed deregulation plan, GSU proffered an inventory plan for treatment of the disallowed $1.4 billion cost as a deregulated asset, which proposal was rejected by the Commission.

The first and second year phase increases ordered by this Court on January 18, 1988, have been implemented with some modifications agreeable to GSU.

In this posture the case is presently before the Court.

Pursuant to oral argument stipulations and post trial proposed findings of facts and conclusions of law filed herein by the parties, the following issues are presented for decision:

1. GSU contends the COMMISSION'S procedure in hearing and deciding the case lacked due process, consequently its decision should not be accorded the presumption of validity on appeal ordinarily applicable in cases of this nature. It is argued that, under the circumstances, the Court should evaluate witnesses credibility and make its own independent determination of the facts and apply appropriate law thereto in resolving the issues on appeal.

2. GSU has abandoned its appeal for inclusion of the disallowed $1.4B cost of RB I from its rate base and urges in lieu thereof its proferred inventory plan which treats the disallowed costs as a deregulated asset subject to recovery pursuant to the plans' terms.

3. Should the return on equity and the remainder of the phase in plan ordered by this Court on January 18, 1988, be made the final judgment of this Court and a permanent injunction to that effect issue herein?

4. STATE alone argues that since the entire cost of RB I incurred after restart of the project in 1979, was found to have been imprudently incurred, all such costs should be disallowed and GSU be allowed recovery only of funds spent on RB I and II prior to the 1978-1979, restart decision time.

5. GSU and all intervenors except STATE, contend the granted rate increase should be allocated among customer classes on a cost of service basis rather than a kilowatt hour basis as ordered by the COMMISSION.

6. The COMMISSION maintains its allocation of rate increase on a kilowatt hour basis was proper and should be affirmed.

7. The COMMISSION and STATE urge rejection of GSU's proposed inventory plan.

SUMMATION OF EVENTS LEADING TO THE DECISION TO BUILD RIVER BEND.

GSU, a Texas, corporation, does business both in Texas, and Louisiana, providing electrical service to approximately 275,000 residential, commercial and industrial users in twenty south Louisiana parishes. It covers an area about 70 miles wide by nearly 400 miles long extend-

ing east to west from Louisiana's Florida parishes to almost 100 miles west of Houston, Texas. It embraces densely populated areas and heavily industrialized localities along the Gulf Coast, including major plants, oil, chemical and other refineries in the Baton Rouge area along the Mississippi River. It also includes plants extending from Lafayette, Louisiana, to large industrial concentrations in Lake Charles, Louisiana, and to petrochemical complexes in Beaumont, Port Arthur, and Orange, Texas, known as the "Golden Triangle."

As of 1970, GSU had generation units as follows: Louisiana Station at the Exxon Refinery, Baton Rouge; Willow Glenn Station, south of Baton Rouge; Roy S. Nelson Station, Lake Charles, Louisiana, Sabine Station, Bridge City, Texas; Neches Station, Beaumont, Texas, and; Louis Creek Station, Conroe, Texas. As was the case in 1970, industrial users presently account for approximately 60% of GSU'S total energy sales and about 50% of peak load demand. Remaining production was, and is currently utilized by residential, commercial and wholesale purchasers of power for resale.

In the 40 year period 1933 to 1973, GSU experienced one of the largest growth rates of any electrical utility in the nation, an annual increase of about 11%, a doubling of load demand about every six and one-half years.

Historically, and as of 1970, all of GSU'S generation units were fueled by natural gas pursuant to favorable long-term contracts entered into in or before 1965. A contract with Exxon Corporation to provide gas for GSU'S Texas generation plants and an agreement with United Gas Company to furnish gas for GSU'S Louisiana generation facilities, assured GSU of ample fuel supplies at inexpensive prices through the year 1984.

However, in the early 1970s, unanticipated circumstances seriously impacted GSU'S fuel supply sources and costs. A shortage developed in the supply of available

natural gas, embargoes were imposed on the import of crude oil and unprecedented increases occurred in the cost of primary energy sources and the cost of development and production of energy. GSU'S fuel problems were further exacerbated in the early 1970s when its Louisiana supplier, United Gas Company, invoked a curtailment provision in its contract and relegated gas as boiler fuel to lowest order of priority availability. By late 1973, GSU'S ability to meet customer demand was in serious jeopardy and alternative generation methods and fuel for existing generators became a matter of grave concern.

In the late 1960s GSU considered using oil as an alternative generation fuel. However, oil involved construction of docks, pipelines, tankage and other facilities. Coincidentally, GSU was aware its units had limited capacity for fuel oil usage other than as peak load as contrasted with base load generators and also that conversion to oil would reduce production capacity and increase operating and maintenance expense (O&M).

Concerned over the need for fuel diversification, GSU considered lignite as a possible alternative fuel source and acquired some lignite reserves in the late 1960s. In 1968, GSU engaged the well known firm of Stone & Webster (S&W), Engineers, to evaluate fossil (coal and oil) generation capacity in Louisiana. In January, 1968, S&W gave GSU a report on possible coal, gas and nuclear sites for generation purposes. Based on this report GSU acquired two sites, one in Texas, known as Blue Hills, and one in Louisiana, known as River Bend, and ordered test borings on the sites. The borings indicated that either coal or nuclear plants could be built at each location.

In 1970, GSU commissioned S&W to evaluate the relative economics of nuclear and coal generation in Louisiana. In a lengthy and comprehensive study and analysis of construction cost estimates, the economics of nuclear

versus fossil fuel, and all aspects of design, construction, operation and environmental control, S&W estimated total cost of nuclear generation would be less costly than either coal or oil, a conclusion shared by then current industry wide data. Internal studies by GSU personnel reached the same conclusion.

In the early 1970s GSU began negotiations with Cajun Electric Power Corporation, Inc. (CAJUN) for mutual assistance and participation in plants and plans, and hoped that CAJUN would participate in RB. In 1978, GSU held a lignite option with CAJUN dependent upon GSU'S ability to finance the venture, which never occurred.

Site preparation began at RB for construction of RB I and RB II before GSU opted to build either coal or nuclear generation, which decision was ultimately made in 1971, when it was resolved to construct a nuclear plant. The decision was based on industry wide data studies, GSU'S own studies, studies and publications of the Nuclear Regulatory Commission (NRC), and the Energy Information Administration, all of which indicated that although nuclear plants were more costly than fossil fuel generators to build, anticipated increases in coal prices compared to the relatively low cost of nuclear fuel, made nuclear powered plants less costly over plant life cycle. RB was included in GSU'S official generation plans in 1971.

The decision to build RB resulted in cancellation of GSU'S Blue Hills Project. Recovery of approximately $20M sunk cost in Blue Hills was granted by both Texas and Louisiana regulators, pursuant to January, 1979, the time GSU decided to restart RB.

Despite the election to construct nuclear generation at RB, GSU continued diversification studies, and, in 1973, retained Bechtel Corporation (Bechtel), an internationally renowned architect engineering firm with world wide

power plant design and construction experience, to make an economic analysis of coal, nuclear and lignite generation plan options. In August, 1973, Bechtel reported nuclear to be the most advantageous alternative. In the interest of diversification, GSU at that time included coal in its official generation plan.

In 1974, GSU engaged S&W to examine the practicality of its generation plans in view of the then current industry conditions. S&W did a sensitivity analysis comparing the economic-impact of generation alternatives dependent on variations in cost assumptions. The study indicated a unit the size of RB would cost $406M—within a range of $345M to $576M.

Concurrently, GSU retained Management Analysis Corporation (MAC), consultants in utility cost estimates and construction, to study GSU'S engineering department. At the same time GSU'S fuel options were examined by the Atomic Energy Commission, predecessor of the NRC which, in September, 1974 reported that fuel costs favored nuclear as opposed to coal fired generators and that a nuclear plant at RB was the proper choice of both fuel and site alternatives. In 1975, GSU included both coal and nuclear fuel in its generation plans, and began acquiring lignite reserves in Texas, and Louisiana, and investigating lignite reserves in Arkansas.

During the interval 1971-1975, GSU actively sought a permit from the Atomic Energy Commission (AEC) for nuclear plants RB I and II and began engineering planning for construction of two coal units at its Nelson Station in Lake Charles, Louisiana.

Also in the 1974-1975 time frame, GSU experienced a sudden, unexpected abnormal growth reduction amounting to only 2.80% in 1974, 2.08% in 1975, and 4.65% in 1976, far below its historical 11% annual rate. It is conceded this unusual adverse circumstance resulted from local and national recession and the Arab Oil Embargo.

It is also conceded this factor directly impacted the required in service date of GSU'S planned generation facilities.

GSU updated its studies with a report dated April 2, 1976, which estimated RB I could be built for $806 M. This study was followed by another which reported an estimated RB I cost in April, 1977.

In January, 1977, GSU had plans to construct two RB projects and two coal units known as Nelson 5 and 6. In January, 1977, the COMMISSION rejected GSU'S pending application for a $23M rate increase.

GSU'S long range growth rate for the 1970s forecasted an annual increase of approximately 4%. Its annual forecasts and actual growth rates for the period were:

Year	Forecast	Actual
1969-70	11.6%	6.59%
1970-71	14.1%	8.09%
1971-72	9.4%	9.68%
1972-73	6.9%	5.19%
1973-74	9.0%	2.80%
1974-75	5.1%	2.08%
1975-76	8.8%	4.65%
1976-77	7.7%	11.89%
1977-78	6.0%	10.33%
1978-79	6.6%	1.77%

The 1974-76 decrease in load growth and 1977 denial of its rate increase application seriously affected GSU'S ability to finance additional generation capacity. In view of these developments GSU'S President, Norman Lee, appointed a Strategic Planning Committee in early 1977, which was instructed to consider all aspects of GSU'S financial plight and make recommendations for action to keep the company financially afloat. The committee was also instructed to make recommendations on fuel plans, financial plans and plans for limiting growth to 5%

annually if the company were forced to build additional generation without adequate rate relief.

Considering its declining growth rates in 1974, 1975, and 1976, GSU, in January, 1977, deemed it unwise to attempt construction of both the RB and Nelson units, and opted to complete its Sabine 5 oil gas unit which it estimated would save ratepayers approximately $400M before the Exxon gas contract expired. At this same time GSU deferred construction of RB I and II in which it had invested about $300M and concerning which it was then apprehensive of its ability to finance completition of a nuclear project.

GSU'S problems were further complicated by introduction in Congress of the Fuel Use Act of 1977. The legislation banned construction of all gas fired electrical generation plants commencing in 1990, and authorized the President of the United States to control or allocate the use of coal or lignite as boiler fuel. The legislation, which which became law in 1978, also prohibited use of existing gas fired generators commencing in 1990, except for limited usage as standby or peak load generation for a maximum of 1,500 hours annually. In effect the law required GSU to replace all of its gas fired generators by 1990.

The unexpected large increases in GSU'S load growth rates for 1977 and 1978, compounded GSU'S generation and financial problems by indicating a growth of 946 MGWS for those two years or a need for an additional 1150 MGWS generating capacity, including reserve requirements.

In April, 1977 GSU did a study of Comparison of Total Capital, Fuel and Operations and Maintenance (O&M) costs per kilowatt hour (KWH), between its Nelson and RB units for the years 1982-2011. It indicated an advantage for nuclear generation.

S&W was commissioned by GSU in June, 1977, to make a cost estimate of RB I, which S&W calculated would be \$1.3B. The following September, 1977, GSU employed MAC to evaluate the S&W estimate and advise as to the probable cost range involved.

In February, 1978, GSU made a Nuclear versus Coal Cost Comparison on a mills per KWH. The results showed that nuclear enjoyed an advantage of 6 mills per KWH and noted that while nuclear capital costs were higher, nuclear fuel costs were relatively fixed whereas coal capital costs, though lower, were rising due to requirements for installation of environmental protection devices such as scrubbers and other pollutant abatement apparata and also that coal prices were rising.

In the spring of 1978, with Don Crawford as its new Board Chairman, GSU began a restart program to determine its most advantageous course for accomplishing fuel diversification. During the summer of 1978, MAC submitted its analysis of S&W'S \$1.3B estimated cost of RB I. MAC reported a 90% probability the cost would be \$1.7B or less, and a 50% probability the cost would be \$1.5B. Later, in August, 1978, an independent analysis by GSU'S own staff reported a \$1.5B cost for RB I.

In 1978, the Public Utilities Commission of Texas (PUCT) granted GSU a certificate of convenience and necessity for RB I and II and Nelson Coal Units 5 and 6, and found that unless all four units were built GSU would be entirely without reserves and have a deficiency of 594,000 KW generation capacity by 1987.

The Fuel Use Act became law on November 9, 1978.

It is undisputed that in the early to mid 1970s, GSU began negotiations with CAJUN for a participation in RB and also in lignite generation projects. Concurrently, particularly in the 1977-1980 time frame GSU'S top management, especially Don Crawford was making concerted efforts to sell all or part of RB domestically as well as

in foreign markets. Ultimately, in January, 1970, a "handshake agreement" was confected with CAJUN whereby CAJUN would purchase a 30% interest in RB I, subject to a buy-back agreement obligating GSU to buy back whatever portion of CAJUN'S 30% of output would not be needed by CAJUN for the first five years of RB operation.

A meeting of GSU'S top executives and executive Board Members was called by Chairman Crawford and held at Beaumont, Texas, on August 1, 1978. The purpose was to make a final decision regarding generation options, particularly whether to build or not build RB. At the meeting all options were discussed in detail, whether to build, sell or cancel RB, or build coal or lignite units. Although the decision was not unanimous it was decided: (1) efforts to sell RB would continue; (2) RB I and II were disassociated so that each could be considered separately, and (3) possible participation in RB would be pursued if the project could not be sold. Chairman Crawford noted the unlikelihood of selling RB because of a lack of foreign interest and also because some domestic utilities were cancelling nuclear plant construction. Crawford also expressed serious concern that GSU would not receive rate relief from either the Texas or Louisiana Regulators if RB were cancelled. Crawford also observed that the then sunk cost of $350M in RB represented approximately two-thirds of GSU'S equity and that cancellation of RB would jeopardize the company's financial stability for an indefinite term. He further noted that the shareholders could not absorb the sunk costs of RB plus an additional $100M cancellation cost. Crawford concluded "We cannot write off RB. We will build."

It is conceded GSU never consulted the COMMISSION concerning possible rate relief for the sunk costs of RB if the project were cancelled. GSU explained that it could not realistically expect such relief in view of the COMMISSION'S past track record in such matters.

In the fall of 1978, after having tentatively awarded S&W a contract to build RB, GSU considered changing contractors. Bids were requested from Bechtel, S&W, Brown & Root (B&R), and Ebasco, four of the most noted engineering and construction firms in the nation. Each submitted a bid on expected total construction cost and anticipated completion dates based on a January 1, 1979, mobilization date, as follows:

Contractor	Expected Total Completion Cost	Time to Complete Letter of Intent To Fuel Load
Bechtel	$1,670,000,000.00	80 months
S&W	$1,707,000,000.00	88 months
B&R	$1,733,000,000.00	93 months
Ebasco	$1,770,000,000.00	96 months

MAC was employed to evaluate the bids and on November 22, 1978, concluded the project could be built by S&W for a cost between $1.56B and $1.96B. S&W was awarded the contract on a cost plus a set or fixed profit regardless of cost.

Shortly after November 22, 1978, the NRC published results of a comprehensive study entitled "Coal and Nuclear; A Comparison of The Cost of Generrating Electricity by Region," its declared purpose was to assist in accumulating and establishing current and future total costs, fuel costs, operating costs and total generation costs for baseload coal and nuclear generation plants. The study concluded coal and nuclear energy were expected to be the principal sources of electrical generation during the remainder of the present century.

In December, 1978, the COMMISSION granted GSU a rate increase predicated on GSU'S accelerated demand for service and construction costs indicated by GSU'S projected service demands and anticipated revenue re-

quirements. The COMMISSION also noted GSU'S apparent need for additional generation capacity at this juncture.

Although CAJUN had not yet signed a participation agreement for RB, in January, 1979, GSU'S Board Chairman, Crawford, brought the matter before the Board for final formal decision which was to build RB predicated on the following assumptions and/or considerations:

1. Cost comparisons and industry data and studies showed nuclear generation to be slightly less expensive to customers on a life cycle comparison with coal and lignite.
2. The abnormal growth rates experienced in 1977 and 1978, necessitated an additional 1311 MGWS generation capacity;
3. Irrespective of abnormal growth in the two preceeding years, GSU faced absolute mandate of the Fuel Use Act to replace all of its gas fired units by 1990;
4. Cancellation of RB without assurance of recovery of its sunk costs would seriously impact ability to finance an alternate generation capacity and could lead tc bankruptcy;
5. A recently negotiated labor stabilization agreement insured labor peace during construction;
6. Although nuclear constructon normally involved a 10-12 year period commencing with site acquisition, licensing and permitting as compared to approximately seven and one-half years for coal or lignite, RB was already licensed and work had progressed to the point that pouring structural concrete could begin immediately, and siting, permitting and licensing had not begun for coal or lignite;
7. Approximately 70% of all engineering and planning had been completed for RB, which was well

within practical engineering standards for resumption of work and the additional 30% needed could be easily accomplished as work progressed;

8. Considering the construction status of RB and utilizing work shifts known as rolling 4-10s would enable reduction of total RB costs and completion of the project in 50 months;

9. Fuel loading after plant completion would take 6 to 8 months before the plant could be put in service;

10. GSU projected a real need for RB as early as 1984;

11. GSU was aware nuclear construction cost was escalating at the rate of approximately 20% annually but felt the rate of cost increase was stabilizing and employment of its "fast track" construction methodology would minimize cost increase;

12. Studies showed restart would cost only $10M more monthly than would the cost of continuing studies and taking no action, and;

13. The then current cost of RB was estimated to be $1.3B.

On March 28, 1979, a nuclear plant core meltdown occurred at Three Mile Island (TMI) generation plant in Pennsylvania. The extent and potential danger resulting from the incident was the cause of grave public concern. Its impact on nuclear generation was of monumental proportions. It prompted serious protracted evaluation by the NRC of nuclear safety standards, procedures and devices. Approximately five weeks after the incident GSU sent a committee to study the effect of the incident upon RB construction. The committee, headed by Dr. Linn Draper, reported RB would not be significantly affected because TMI used a pressurized water reactor whereas

RB would employ an unpressurized boiling water reactor. The committee noted that the TMI problem involved a stuck valve in a secondary loop or apparatus which RB would not have. The Committee also reported that any TMI mandated changes would involve minimal cost increase in RB, estimated at about $25M. The committee also felt the biggest change arising from TMI would be enhanced personnel training because most nuclear plant problems seemed to have arisen from improper training of operating personnel. GSU already had in effect a highly developed operator training program which utilized a simulator.

Site construction forces were mobilized at RB in the summer of 1979, and pouring of structural concrete began in September, 1979. RB was scheduled for fuel loading in November, 1984, and fuel loading approximately 7 months later.

In August, 1979, CAJUN signed an agreement purchasing a 30% interest in RB I. The agreement was subject to a buy back provision obligating GSU to purchase whatever portion of CAJUN'S 30% of output which would not be needed by CAJUN during the first five years of RB'S operation.

The Fuel Use Act was repealed in 1986.

GSU'S CLAIM OF LACK OF CONSTITUTIONAL DUE PROCESS

It is argued that the COMMISSION'S procedure in this instance falls far short of providing a full hearing and consideration of the evidence by the COMMISSION as required by United States Constitution Amendment V, XIV, Section 1, and Louisiana Constitution 1974, Article 1, Section 2, which provide that no person shall be deprived of life, liberty or property without due process of law.

The COMMISSION consists of five members who ordinarily do not participate in all sessions of a particular rate hearing, which procedure was followed in this instance. In this case hearings were conducted by Roy Edwards, an experienced COMMISSION employee, whom the COMMISSION appointed as Hearing Examiner.

Commissioner Louis Lambert caused himself to be appointed a Hearing Examiner and, in that capacity, as well as COMMISSION member attended numerous hearing sessions.

The COMMISSION initially engaged two firms of attorneys to represent it at the hearings and later engaged a third firm as lead counsel. Additionally, the COMMISSION employed Kennedy & Associates (KENNEDY), Atlanta, Georgia, a highly recognized utility consulting firm; Charles Komanoff, nuclear specialist, and the engineering firm of O'Brien, Kritzberg & Associates (O'BRIEN), experts in nuclear prudence cases.

Hearings were held on 33 days in the interval of March 30 - October 6, 1987. Witnesses were presented and cross-examined concerning their live as well as prefiled depositions and statements, the entire proceeding producing thousands of pages of testimony and hundreds of exhibits.

Special COMMISSION counsel Uddo & Porter collaborated with COMMISSION experts in presenting the COMMISSION'S case and conducting a prudence investigation consisting of numerous requests for data, and interviews with GSU'S witnesses. Additional experts were engaged in technical areas to testify regarding prudence of the decision to build RB I. It is undisputed that the COMMISSION'S counsel and experts worked in close conjunction with some of the Commissioners during the hearing process.

No findings of fact were made by the Hearing Examiner. He made no evaluation of witnesses credibility and

no recommendation to the COMMISSION concerning disposition of issues. At the close of the hearings a Report of Special Counsel, largely prepared by KENNEDY consociate with special counsel and other COMMISSION experts, was presented to the COMMISSION. The Report of Special Counsel included summaries of witnesses' testimony and recommendations as to disposition of the prudence issue. Admittedly, a considerable portion of the report is embodied verbatim in the COMMISSION'S majority report.

After submission of the report GSU sought and was granted opportunity to argue the matter and a full day of hearing before the COMMISSION was devoted to this purpose.

GSU does not contend that COMMISSION review of the transcript is mandatory prior to decision, it urges, however, lack of due process in that the regulator acted without findings of facts or conclusions from the Hearing Officer and based its decision solely on a summary of witnesses testimony prepared by Special Counsel and a Report of Special Counsel.

Complaint is also made by GSU of the COMMISSION'S failure to assign reasons for Order No. U-17282 and its supplementation on staff and counsel recommendation concerning its basis for allocating the granted rate increase on a KWH foundation when no evidence was presented concerning KWH allocation and despite testimony of four experts who unanimously recommended allocation on a cost of service basis. In this regard it is contended the COMMISSION erroneously allocated the increase on a KWH basis solely on the ground that such method of allocation has been judicially approved in other instances.

In effect GSU maintains it was denied procedural due process because: (1) The decision maker failed to consider the evidence either personally or through the Hearing Examiner, the only person to hear all the testimony

(2) the decisional process was delegated to adversarial witnesses who admittedly prepared the COMMISSION'S order based on their own evaluation of opposing witnesses' testimony, and; (3) the COMMISSION amended Order U-17282, allocating the rate increase on a KWH basis on totally unfounded reasons and in complete disregard of the only testimony of record concerning rate allocation.

Conversely, the COMMISSION maintains that rate making has historically been characterized as a legislative function consequently, judicial review thereof is limited and does not admit of factual consideration on appeal. Therefore, strict judicial procedures are not mandatory in a regulatory proceeding, and in this case the COMMISSION'S procedure was in accord with state law and jurisprudence and consistent with its normal procedure. The COMMISSION also argues that its selection and reliance upon consultants, as provided by state law, fills all due process requirements.

Additionally, the COMMISSION cites well established jurisprudence to the effect that its orders are presumed valid; its decisions are not to be overturned on judicial review except on a clear showing of abuse of discretion, or that the decision is arbitrary or capricious and if the record contains evidence supporting its decisions, courts may not alter, amend or overrule its orders even though the reviewing authority on appeal may have decided the issues differently.

The COMMISSION'S authority is derived from Louisiana Constitution of 1974, Article IV, Section 21 (B) which states:

> (B) POWERS: AND DUTIES. The Commission shall regulate all common carriers and public utilities and have such other regulatory authority as provided by law. It shall adopt and enforce reasonable rules, regulations and procedures necessary for the discharge of its duties,

and shall have other powers and perform duties as provided by law."

Appeals from the COMMISSION'S orders are governed by Louisiana Constitution, 1974, Article I, Section 19 which provides for appeals in general and Article IV, Section 21 (E) which applies specifically to the COMMISSION and which states:

(E) APPEALS: Appeal may be taken in the manner provided by law by any aggrieved party or intervenor to the district court of the domicile of the commission. A right of direct appeal from any judgment of the district court shall be allowed to the supreme court. These rights of appeal shall extend to any action by the commission, including but not limited to action taken by the commission or by a public utility under the provisions of Subparagraph (3) of Paragraph (D) of this Section."

The foregoing constitutional provisions are supplemented by LSA-R.S. 45, Part V, Public Service Commission, Section 1192, which also provides for appeals from the COMMISSION'S orders. It also states such appeals shall be tried in the same manner as civil cases and that the reviewing court may affirm, change, modify, or alter, or reverse the order appealed, as justice may require.

Similarly LSA-R.S. 49, Ch. 13, Administrative Procedure Act, Section 964 G, applicable to the COMMISSION, provides that on appeal from a decision of an administrative body, the reviewing court may reverse or modify such decisions on grounds of constitutional or statutory violations, or because the decision is arbitrary, capricious or an abuse of discretion.

GSU concedes that rate making has been historically characterized as a legislative process since the advent of Prentis V Atlantic Coast Line Company, 211 U.S. 150, 53 L. Ed. 151 (1908) which categorized rate mak-

ing as the equivalent of legislation in that both establish rules for the future.

Nevertheless, Morgan V United States, 298 U.S. 468, 80 L. Ed. 1289 (1936), which involved an action to enjoin enforcement of an order fixing maximum rates for market agencies buying and selling livestock at the Kansas City Stockyards, held that, despite the legislative nature of rate making, a full hearing and decision on evidence sufficient to support pertinent and necessary findings of fact, is required to satisfy due process in such proceedings.

In Goldberg V Kelly, 397 U.S. 254, 25 L. Ed. 287 (1970), a case involving termination of welfare recipient benefits without notice, the court held due process demands notice, opportunity to confront witnesses and a proceeding which insures an impartial decision based on the evidence, which elements must be evaluated in the light of the circumstances of each individual case.

Counsel for GSU argues that COMMISSION hearings should more closely resemble a trial, and cites authority for the rule that short cuts and remedial expedients are not favored in such cases. Ohio Bell Telephone Company V Public Utilities Company, 301 U.S. 292 (1937); United States V Florida East Coast Railway Company, 410 U.S. 224, 35 L. Ed. 2d 223, 93 S.Ct. 810 (1973); Morrissey V Brewer, 408 U.S. 471, 33 L. Ed. 2d 484, 92 S. Ct. 2593 (1972).

In Ohio Bell, above, the regulator declined to disclose certain documents on which it based its decision ordering rate refunds.

Florida East Coast Railway, above, concerned an I.C.C. order fixing rates paid by railroads for use of non-owned cars, the rates being designed to promote early return of cars to their owners. Parties were allowed sixty days to present written statements of position, written evidence and written argument, but not allowed to orally

argue or offer oral testimony. The supreme court reversed a lower court judgment holding such procedure to be a denial of due process. The ruling was founded on the premise that congressional rule making authority vested in the agency did not require opportunity to present live witnesses or oral argument.

Morrissey, above, resulted from revocation of convict paroles without benefit of hearing. The district court and 8th circuit court of appeals affirmed. The United States Supreme Court reversed on the premise that due process requires notice in such instances.

West Ohio Gas Co. V Public Utilities Commission of Ohio, 294 U.S. 63 (1934), cited by GSU, reviewed a regulatory commission order fixing municipal gas rates without a hearing or the taking of evidence. The supreme court reversed the Ohio supreme court and held such action arbitrary and in violation of the due process protection afforded by the Fourteenth Amendment.

GSU also relies upon Patagonia Corporation V Board of Governors of Federal Reserve System, 517 F. 2d 803 (1975), which involved interpretation and application of the grandfather clause in the Federal Bank Holding Company Act. Plaintiff filed application for determination and interpretation of its grandfather rights and submitted affidavits in support of its position. Later, the Board gave notice of its intent to review plaintiff's grandfather status and subsequently ordered plaintiff to divest all of its stock acquired in a designated corporation after a specified date, without affording plaintiff a hearing. The court held a full hearing was required and vacated the Board's order.

GSU also relies upon American Bancorp. Inc. V Board of Governors of Federal Reserve System, 509 F. 2d 29 (1974), which involved plaintiff's application to acquire 100% of another corporation's stock. The board, without affording a formal type hearing, denied plaintiff's re-

quest for a hearing; but extended the privilege of submitting evidence at an oral presentation on the propriety of the proposed acquisition. The board relied upon an amendment which dispensed with the necessity for hearing in every case and the board's own conclusion a hearing was not justified in the case because of a lack of dispute as to any material fact. The court distinguished legislative and adjudicative facts on the ground that adjudicative facts involves the parties to the proceeding and answers questions of who did what, when, where, how, why, and with what motive or intent, whereas legislative facts do not concern the immediate parties but rather general facts which aid in deciding questions of law, policy and discretion. Finding that adjudicative facts were involved, which normally are tried by jury, a hearing and opportunity to rebut opposing testimony was mandatory. The matter was remanded for rehearing.

None of the cited authorities are factually in point. Each involved action taken without benefit of notice or hearing, or resulted from regulator refusal to permit an offering of evidence in support of a claim, or involved a decision based on evidence not disclosed to the utility during the hearing process.

The thrust of GSU'S due process argument is not that it was deprived of the right to present evidence, cross-examine witnesses, or orally argue its cause, but addresses the manner in which the hearing was documented, failure of the commissioners to attend the hearings and reliance on staff reports as to findings of fact rather than making its own findings, and failure to assign reasons for its decisions.

The COMMISSION contends a full hearing was granted because GSU presented numerous witnesses of its own on direct, rebuttal and surrebuttal. The record establishes that GSU was afforded full opportunity to cross-examine COMMISSION witnesses and introduce numerous documents and exhibits in support of its contentions.

Counsel for the COMMISSION argues that it is not necessary for the Commissioners to personally hear the evidence and that the COMMISSION has authority to employ counsel and experts to assist and advise it as was done in this case and which accords with its usual practice.

The COMMISSION suggests GSU requests trial de novo on appeal, contrary to well established jurisprudence which holds that COMMISSION orders are presumed valid the same as legislative enactments also that the COMMISSION may consider matters of fact, law and policy in reaching its decisions, the same as the legislature. Southern Bell Telephone Co. V Louisiana Public Service Commission, 187 La. 137, 174 So. 180 (1937).

In response to the claim that failure of the Hearing Officer to make findings of fact and recommendations vitiates the hearing process, the COMMISSION relies on jurisprudence holding that judicial inquiry on review of rate making decisions is generally limited to whether the regulator abused its discretion or acted arbitrarily or capriciously and, if the total effect of the order cannot be found unjust or unreasonable, judicial inquiry is at an end and infirmities in the method employed in reaching the result become unimportant. The product of expert judgment carries the presumption of validity and the challenger bears the onerous responsibility of showing its invalidity due to unjust and unreasonable results. Gulf States Utilities Company V Louisiana Public Service Commission, La. 364 So. (2d) 1226 (1978); South Central Bell Telephone Co. V La. Public Service Commission 352 So. 2d 964 (1977); Federal Power Commission V Hope Natural Gas Co., 320 U.S. 591, 64 S. Ct. 281, 88 L. Ed. 2d 333 (1944).

The COMMISSION also relies on authorities which hold its orders are entitled to great weight and may not be disturbed on appeal except on a showing abuse of

discretion or unreasonable results. South Central Bell Telephone Co. V La. Public Service Commission, La. 352 So. 2d 964 (1977).

Also the COMMISSION alludes to South Central Bell Telephone C., above, and Greater Livingston Water Company V La. Public Service Commission, 294 So. 2d 501 (La. 1974), as authority for the rule that courts should proceed slowly in substituting their views for those of an expert body charged with the legislative function of rate making and should not disturb such a decision in the absence of a clear showing of abuse of discretion.

Our Supreme Court has declared that policy is part of the legislative process of rate making, as evidenced by the following language found in United Gas Pipe Line Co. V La. Public Service Commission, 130 So. 2d 652, 241 La. 687 (1961):

> "In rate cases such as this, the issue for decision is whether the rate fixed is "reasonable and just." (Citations omitted). In resolving this issue, great weight must be accorded to the ruling of the Commission. Courts should act slowly in substituting their own views for those of the expert body charged with the legislative function of rate making, a *technical field which embraces far reaching economic policies*." (Emphasis by the Court).

Replying to GSU'S argument that the COMMISSION'S Hearing Examiner made neither findings of fact nor recommendations as to disposition of the case, the COMMISSION cites LSA-R.S. 45:1163, Section A, which establishes an economic and rate analysis division of the COMMISSION in matters involving rate making. It provides for a division of persons skilled in auditing, economics, finance, accounting, engineering and law, who shall be full time COMMISSION employees. Section B authorizes employment of additional such experts if full time staff is unable or insuffiicent for review and evaluation purposes.

Considering the format of the COMMISSION'S hearings in this instance, the Court finds that due process, that is the manner in which the hearing was conducted, was satisfied, excepting only as to the question of allocation of the rate increase on a kilowatt hour basis. In this regard the COMMISSION made no factual findings and arbitrarily decided the allocation issue on precedential basis without regard to the testimony of record on the allocation issue. This issue will be disposed of later in this opinion.

Regarding prudence, the record overwhelmingly discloses GSU had every desired opportunity to presents its case from an evidentiary standpoint. It is also clear that GSU was afforded ample opportunity to argue prudence issue and, on several occasions, was permitted to consult with the COMMISSION during the hearing process.

It is contended the COMMISSION denied due process by failing to apply historical standards and well established principles of rate making in reaching its decision. It is argued that LSA-R.S. 45:1176 mandates the COMMISSION to fix just and reasonable rates conformably with established jurisprudence in the landmark case of Bluefield Water Works and Improvement Company V Public Service Commission of West Va., 262 U.S. 679 (1923) and subsequently followed in Federal Power Comm. V Hope, 320 U.S. 591 (1944). Bluefield, above, is cited principally for the rule that a utility is entitled to earn sufficient return on the value of its property used in the public service equal to that received by other businesses in the same general area with similar risks and uncertainty. Bluefield also dictates that return should be sufficient to assure confidence in the utility's financial soundness and adequate, under efficient and economical management, to maintain and support its credit and enable it to raise funds required for the discharge of its public obligations.

While Hope, above, declares rate making involves balancing utility and rate payers' interests, it expressly holds it does not require that a utility make a net profit. Hope and Bluefield qualify the balancing of interests rule by limiting its application to prudently incurred costs and investments. Hope adds that the rule does not require or insure investor profit. This latter holding in Hope has been followed and applied in Philadelphia Electric Co. V Public Service Com'n, 538 A. 98, Pa. Comm. Ct. 1988), which, citing Hope, held that utilities are not protected enterprises and therefore are not immune or exempt from normal business risks.

In response to the foregoing GSU contentions, the COMMISSION invokes the well established jurisprudence that courts should proceed slowly in substituting their own views for those of an expert body charged with the legislative function of rate making and therefore should not disturb such a decision in the absence of a clear showing of an abuse of discretion. South Central Bell Telephone Company V Louisiana Public Service Commission, La. 352 So. 2d 964 (1977).

The COMMISSION also cites Hope, above, for the rule that in rate cases the result is the subject of judicial review, not the process used to reach the result, as evidenced by the following language appearing therein:

> "If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach the result may contain infirmities is not then important."

In this same vein the COMMISSION cites numerous decisions of our own Supreme Court which hold that on review of a regulatory body order, the court may not substitute its views for those of the expert body even if the court would reach a different conclusion on the facts if the decision has evidentiary support in the record. South

Central Bell Telephone Company V Louisiana Public Service Commission, 352 So. 2d 964 (La. 1977).

GSU argues such a rule is preposterous in that it mandates affirmance of an order if supported by any evidence whatsoever, regardless of its competency, witness credibility or reasonableness of its purport.

In Hendrix V Louisiana Public Service Commission, La. 263 So. 2d 343 (1972), the rule was thusly stated.

> "—If—it is found the order was not rendered arbitrarily or capriciously *and is supported by evidence in the record, courts must uphold those orders.*". (Emphasis by the court).

This court's research discloses that our Supreme Court has employed varying terminology in expressing the so-called "any evidence rule" applied in the review of the COMMISSION'S decisions. For example, Central Louisiana Electric Co., Inc. V Louisiana Public Service Commission, 437 So. 278 (1983), and South Louisiana Electric Co-Op Assn. V Louisiana Public Service Commission, 367 So. 2d 855 (La. 1979), hold such decisions must not be disturbed unless found arbitrary and capricious "*or unsupported by evidence.*"

Louisiana Power and Light Co. V Louisiana Public Service Commission, 343 So. 2d 1040 (1977), held such decisions may be held arbitrary "*if not supported by some factual evidence.*". To this same effect see Truck Service, Inc. V Louisiana Public Service Commission, 263 La. 588, 268 So. 2d 666 (1972).

Louisana Gas Service Company V Louisiana Public Service Commission, 256 La. 536, 237 So. 2d 369 (1970), and Southwest Louisiana Elec. Membership Corp. V Louisiana Public Service Commission, 441 So. 2d 1201, declared it a court's duty to vacate a commission's order "*where the Commission's findings and conclusions are not supported by the evidence.*".

Other cases, however, have held the pertinent rule of review in Commission cases is that "*where there is some evidence upon which the Commission could reasonably base its determination, the Supreme Court will not upset the Commission's ruling.*" Louisiana & A Ry Co. V Louisiana Public Service Commission, La. 410 So. 2d 1118 (1982); Louisiana Power & Light Co. V Louisiana Publice Service Comm., La. 392 So. 2d 658 (1980); Central La. Elec. Co. V La. Public Service Comm., La. 370 So. 2d 497 (1979).

Fortunately, the variation in criteria and resulting uncertainty engendered by prior jurisprudence on this issue has seemingly been resolved in CTS Enterprises V Louisiana Public Service Comm., 540 So. 2d 275 (La. March 13, 1989) which involved revocation on appeal of a contract carrier permit granted by the COMMISSION. The issue was whether the record supported issuance of the permit. The Supreme Court reviewed in some detail the jurisprudence concerning the degree and nature of evidence required to sustain a COMMISSION decision and concluded the test should be that a COMMISSION order should not be disturbed unless it was based on an error of law or fact or was a decision which the COMMISSION "*could not have found reasonably from the evidence.*"

It thus appears the Supreme Court has set this issue at rest and henceforth the test shall be that a COMMISSION order shall not be disturbed unless it is predicated on an error of law or lacks reasonable support on the record. This test appears to be the most logical, practical and easily understood standard and is the rule which will be applied by the court in this instance.

PRUDENCE—BURDEN OF PROOF

Concerning the burden of proof applicable in determining prudency, GSU concedes that whereas, a utility's costs are ordinarily presumed reasonable, nevertheless, when serious doubt of reasonableness is shown, the burden

rests upon the utility to establish the prudency of costs sought to be recovered from ratepayers. GSU also acknowledges that in this instance it bears the burden of proof of prudency. Re Kansas City and Light Company (Missouri Public Service Commission) PUR 4th 1, at pp. 50-51; Re Consumer Power Company (Michigan Public Service Commission) 14 PUR 4th 1, at p. 18.

PRUDENCE—APPLICABLE LAW

It is well settled in our jurisprudence that utility rates are predicated upon and must reflect prudently incurred costs of providing service and that imprudently incurred costs are excluded from rate base consideration. South Central Bell Tel. Co. V. La. Pub. Serv. Comm., 373 So. 2d 480 (La. 1979); Morehouse Natural Gas Co. V. La. Pub. Serv. Comm., 162 So. 2d 334 (La. 1964). These authorities declare the significance of this standard emanates directly from the monopoly status of utility companies.

The monopoly factor mandates that management makes reasonable efforts to minimize costs. Nevertheless, because utility managers are also responsible to shareholders, and therefore cannot prefer ratepayers interests to those of investors, management must exercise reasonable care and supervision to balance these interests. Federal Power Comm. V. Hope Natural Gas Co., 320 U.S. 591 (1944).

Prudence dictates a decision based on a logical process guided by a reasonable consideration of relevant information known or reasonably knowable at decision time. Metzenbaum V. Columbia Gas Transmission Corp. Opinion No. 25 4FERC 161,277 (1978).

Equally well established is the principle that prudence addresses the total decision making process including inputs, assumptions, forecasts and studies which may have affected the decision. Metzenbaum, above.

Because a reasonable assumption existed in the past does not mean there is no limit to decisions which may

be based thereon. In such instances management must exercise a standard of care consistent with the actions of a reasonable person possessing proper qualifications, meaning planners and executives competent under circumstances existing at decision time.

All parties agree that the applicable test in an "after the fact" prudence evaluation, is whether the planner made a reasonable choice based on analytical tools, data and information known or knowable at decision time, and was properly qualified to make the choice. To insure fairness hindsight must be avoided in an "after the fact" prudence evaluation because an "after the fact" evaluator enjoys the luxury of wisdom based on perfect knowledge unavailable in the original decision time frame.

Because management decisions must be made prospectively, prudence must be judged in the light of the management process leading to the decision and actions taken within the process without any regard as to results. The evaluator must place himself in the position of the planner and consider all internal and external circumstances affecting the utility at decision time.

It is conceded that reasonable planners and managers may disagree on future planning decisions and that selection of one reasonable alternative versus another does not denote imprudence even though it would not have been the examiner's choice or later proves to be less than an ideal choice. It is also agreed that mistakes, errors in judgment, and imperfect decisions do not per se equate imprudence, because prudence does not require either perfect foresight or performance. An objective decision based primarily on the use of contemporaneous analytical tools, information, data, studies and documents is deemed prudent.

ALLEGED DEFICIENCIES IN GSU'S RESTART PLANNING

It is conceded that GSU'S initial planning for RB was prudent until the project was put on hold in 1977, in

that studies by GSU and consultants consisted, inter alia, of side by side economic comparison of life costs of nuclear versus coal and lignite generation.

The STATE and COMMISSION argue, however, the restart decision was imprudent due to the following alleged errors, omissions, use of substandard and outmoded techniques, and false and erroneous assumptions on the part of GSU management:

1. Failure to make current side by side economic comparison of life cycle costs of nuclear versus coal and lignite generation as of restart time, namely 1978-1979. It is argued that GSU'S restart studies were merely updates of the cost of nuclear construction without regard to comparison of then current construction cost of coal and lignite.

2. Disregard of circumstances intervening between the hold RB decision in 1977, and restart in 1978-1979, particularly information in GSU'S files indicating an annual high (20%) increase in nuclear construction costs which had persisted for years.

3. Flaws in GSU'S load forecasting methodology consisting of personal interviews with industrial users to project demand and use of the outmoded technique of trending to forecast future demands of residential, commercial and other users, and failure to consider effect of price increase on load growth. As a result GSU'S load growth studies projected a larger growth than would have a properly conducted study and also projected a need for 1985 generation which in fact was not required until 1987.

4. GSU'S fuel diversity planning, consideration of alternate generation facilities, and unfounded assumption that sunk costs of RB could not be recovered, were unreasonable and not actions of a prudent planner.

5. Failure to properly assess the cost effect of the TMI incident on nuclear construction, particularly ensuing governmental regulations mandating expensive environmental control and safety devices in response to public reaction over the event.

6. Failure to consult the COMMISSION concerning possibility of recovering sunk RB costs if RB were cancelled.

7. The in-house determination of inability to finance alternate generation if RB were cancelled without immediate rate relief for the sunk costs, was based on flawed accounting procedure.

8. The restart decision was a "panic reaction" based on the false and unfounded assumption no rate relief would be received for recovery of sunk costs of RB and shareholders could not absorb the resulting loss.

9. GSU failed to consider and/or implement cogeneration and/or conservation programs to reduce demand for service and thereby minimize additional generation requirements.

10. Failure of GSU to attempt serious negotiations to purchase electricity to fill at least part of the need for additional power.

GSU maintains its restart studies were in fact side by side economic cost comparisons of nuclear versus coal and lignite generation over plant life. Alternatively, no such comparison was required at restart time because its initial studies showed nuclear to be cheaper over plant life cycle and no significant changes had occurred in cost of coal and lignite generation between the time RB was put on hold and the restart studies.

GSU concedes its awareness of the traditional 20% annual increase in cost of nuclear construction at restart time, but it concluded that with its accelerated construction schedule, its assurance of labor peace, and its belief

that the rate of cost escalation would not continue indefinitely, it could proceed and build RB in time to meet projected load growth.

As to load forecasting methodology, GSU concedes it used trending to forecast other than large industrial growth and employed personal interviews with large industrials to project large industrial growth. Admitting some shortcomings with the system, GSU shows its results were substantially the same as those reached by the COMMISSION'S experts who considered the effect of price increase on growth in making their determination of load growth for the time involved.

Regarding assumptions concerning rate relief for costs of cancelled RB, GSU contends it was justified in assuming no such relief would be forthcoming or, if so, it would not be received soon enough to relieve its dire financial position at restart time. GSU defended its failure to consult the COMMISSION on this issue on the ground the COMMISSION'S track record for granting rate relief is such that application for relief would have been futile. GSU denies the claim that its in-house determination of inability to finance RB or an alternate without immediate full rate relief for sunk costs of RB was based on flawed accounting technique and principles.

According to GSU the restart decision was not a "panic reaction," but a deliberate, well considered decision based on all options open at the time. GSU also contends its decision was based on circumstances and considerations which the COMMISSION'S expert ignored, namely, the need to diversify, the mandate to replace all existing gas fired units by 1990, and the fact that it had unsuccessfully attempted to acquire sufficient lignite reserves to build a unit of RB'S size. The Court will consider the issues separately:

LOAD GROWTH FORECAST METHODOLOGY

It is conceded that GSU'S actual load growth for the period 1969-1976 was considerably below its projections

as hereinbefore shown and far below its historical growth rate of approximately 11% annually. Nevertheless, GSU contends the return to normal load growths in 1977 and 1978, indicated a need for additional generation. The STATE and COMMISSION contend GSU'S reaction to these load increases was unwarranted because of their abnormality and thus resulted in the erroneous conclusion additional capacity was needed two years before the actual need would arise.

Admittedly, GSU did not consider the effect of price increase on demand for service in making load growth forecasts. It relied on field interviews with all 70 of its large industrial users who account for approximately 50% of its total demand and about 40% of its peak load demand. Discussions included consideration of each customer's load requirements, operating problems and fuel considerations. Using this data GSU made subjective forecasts for the six year period 1979-1984. Growth beyond 1984 was projected by calculating growth rate for the last few years of the six year period and assuming the rate thus determined would continue.

For residential, small industrials and all other customer classes GSU forecast growth by a technique known as trending. This method, in wide use during the early 1970s, was then undergoing modification to improve its efficiency and sophistication. Trending forecasts growth by plotting base load and peak load demand and assuming the result attained will continue. It is done on an annual basis. In this instance the forecasts were made on studies of data from approximately 600 sub-stations the individual totals of which were combined to make the forecasts.

GSU'S files show a 1½% annual price increase for the period 1967-1978. A corporate model run by GSU in 1979, predicted an annual increase of about 9½% or 5.99% from 1978 on, much larger than the historical 1½%.

The COMMISSION employed KENNEDY & ASSOCIATES (KENNEDY), a firm of experts with considerable experience in prudence evaluations of public utility requests for rate increases.

Stephen J. Baron, a KENNEDY associate, expert in load forecasting techniques, criticized GSU'S trending methodology as being outdated at the time. Admittedly, trending was then in wide use but was being rapidly modified and/or replaced by econometric models (computer models) which could evaluate effect of price increase on customer usage, a function trending could not perform. Baron explained that econometric models were a very valuable tool at the time because of the rapid increase in prices due to the Arab Oil Embargo and price increases in general. He stated that had GSU used an econometric model, the results would have shown a growth lower than GSU'S projections based on trending.

Baron testified he constructed an econometric model for predicting load growth which is in wide use. It performs a statistical measurement of variables which relate demand for electricity to the economic factors which affect demand. It tests the relationship based on economic theories applicable in the field, in this instance an electric utility. According to Baron by 1974-75 most utilities had abandoned trending because it did not and could not provide a method for determining the effect of price increase on demand. Neither could trending determine the effect of general economic conditions on usage and consumption. He admitted that in a stable economy trending worked, but not so during a period of price rises.

In 1979, GSU'S task force on load forecasting reported that its trending methodology did not allow consideration of price elasticity and demographic and economic trends. At about this time GSU engaged an outside firm to assist in updating its forecasting technique.

Baron ran his model to test the reasonableness of GSU'S forecasting system because, if his results proved

to be the same, GSU'S results must be deemed reasonable despite the inefficiency of the technique employed.

GSU'S load study was for a period of six years although RB was not expected to be on line within that time frame. GSU'S files contained data on price elasticity and demographic and economic trends, but its load forecasting technique did not factor this information as part of the study.

Baron stated a six year study was too short and could not predict when RB would be needed, with any reasonable degree of accuracy. Using his own model, Baron forecast growth for the period 1967 through 1978. He employed two variables, namely, the real price of electricity and Texas and Louisiana State Products data for the period. He forecast a growth rate of 3.68%, indicative of need for a 850 MGW capacity, less than GSU'S forecast for 1985. Since GSU'S share of RB was only 658 MGWS, [sic] In 1979 GSU'S generation plans called for RB to come on line in November, 1984. Baron stated there was no need for haste because GSU already had plans for Sabine and Nelson units scheduled for completion prior to RB and also because GSU had a participation agreement with CAJUN.

Baron conceded he used Gross State Products data in his analysis because these, rather than national figures, were more appropriate to GSU'S position. He acknowledged that had he used National Gross Products figures as did GSU, his growth rate would have been 5%, much closer to GSU'S figure of 6.3%. He also admitted most utilities were predicting growth rates of 6% in this time frame but added that his 5% figure approached GSU'S estimate only because he used a $1.3B cost for RB whereas the actual cost was much higher.

In essence Baron testified that the inefficient technique employed caused GSU management to falsely project an excessive load growth and a premature need for genera-

tion to meet the increase. Baron opined that this caused GSU to overlook more favorable alternatives and constituted imprudent management.

GSU'S FAILURE TO CONSULT THE COMMISSION CONCERNING RECOVERY OF SUNK COST OF RB IF THE PROJECT WAS CANCELLED

Succinctly stated, GSU'S management testified no attempt was made to obtain the COMMISSION'S position on this issue because it was felt that, based on past experience, the COMMISSION'S record was unfavorable in that the COMMISSION indicated a hostile attitude toward utility rate increases. As an example reference was made to the COMMISSION'S rejection in January, 1977, of GSU'S application for a $23M rate hike. In rebuttal, COMMISSION witnesses noted a $20M rate increase granted GSU in December, 1978, at which time the COMMISSION recognized GSU'S need for additional generation capacity. GSU conceded this increase was granted but concluded that in view of the COMMISSION'S historically hostile disposition regarding rate increases and the immensity of the $300M-$400M cost of RB, including cancellation costs, rate recovery of such enormity could not reasonably be anticipated. Accordingly, no effort was made to obtain the COMMISSION'S position on this issue.

GSU'S REJECTION OF THE LIGNITE OPTION

The record shows that GSU eliminated coal and lignite as alternatives for RB because, as concerned coal, studies showed delivery was uncertain, prices were prone to escalation, transportation charges were high, and it had a working agreement with CAJUN, a coal operated facility.

Lignite was rejected because: (1) adequate lignite reserves were not available in GSU'S service area; (2) lignite involved minemouth operation meaning generator

must be located as near mine as possible because of impact on transportation of fuel and construction of transmission lines; (3) all studies indicated that whereas nuclear construction was more costly, nuclear generation, because of low fuel cost, was less costly over plant life cycle, and; (4) lignite would not have achieved diversity because GSU then had plans to build its Nelson coal units and adding lignite would not promote diversity.

The record estiblishes that GSU began acquiring lignite reserves in 1975, immediately after the Arab Oil Embargo. Efforts to acquire Arkansas lignite proved futile because Arkansas would not allow a generation plan that did not serve that state.

GSU concedes it made no effort to acquire available lignite reserves in North Louisiana, because CAJUN, with whom GSU had a participation agreement already held extensive lignite reserves in that area. This, according to GSU management, left Texas as a source of lignite.

GSU acquired approximately 100M tons of lignite reserves in the area of its Lovelady and Jewitt, Texas, plants, situated about 50 miles from GSU'S service area. The deposits were inadequate to supply a 1000 MGW unit for a period of 40 years, the expected life of a plant. Lovelady reserves proved adequate to supply a 300 MGW plant for only 8 years. Jewitt was found to contain reserves in the amount of about one-half those of the Lovelady deposits, and moreover, could not be mined because of outstanding oil and gas production on the properties.

Consideration by GSU management was given to purchasing lignite in the Brazos, Texas, area southwest of GSU'S Lovelady holdings and lying between two rivers. Expert analysis of these deposits revealed lignite quality to be less than represented, and also disclosed that about 25% of the deposits were situated in a flood plain rendering them unmineable. This site was rejected.

An area in the vicinity of Calvert, Texas, was explored and rejected when evaluation determined it was too remote and lacked adequate water supply.

Lignite deposits owned by Shell Oil Company, located west of Calvert, Texas, were considered and proved to be cost prohibitive. Shell asked a high initial price coupled with an annual escalation rate of 13% for a ten year period and a subsequent different escalation factor.

Reserves of lignite owned by Phillips Petroleum Company, situated south of Calvert, Texas, were considered by GSU and abandoned for essentially the same reasons the Shell deposits were not acquired.

In 1979, GSU'S files contained data indicating that lignite generation could be built in 7 to 8 years. GSU maintains, however, it could not at that time have built lignite generation in time to meet its projected 1984-1985 requirements. The COMMISSION'S experts concluded that GSU'S flawed forecast methodology led GSU to erroneously conclude its need would arise two years prematurely, and that GSU would have had ample time to build lignite generation to meet a 1987 need.

GSU also contends it could not have built lignite because its concerted efforts to acquire sufficient lignite reserves was unsuccessful. In rebuttal, COMMISSION experts found that GSU had capability for small lignite units in Texas. It is noteworthy that GSU made no real effort to utilize the participation agreement it had with CAJUN concerning CAJUN'S extensive lignite holdings in north Louisiana.

RESTART DECISION COST COMPARISON OF LIGNITE-COAL VERSUS NUCLEAR GENERATION

The COMMISSION found the restart decision was based on the following studies comparing life cycle costs of nuclear construction versus lignite, predicated on the opinion of its experts that lignite was the preferable

alternative because GSU had lignite in its generation plans at restart time and had ample time to build lignite to meet a properly computed demand:

1. A S&W 1970 study (nine years prior to restart) indicating total cost of nuclear generation would be less costly than coal or oil, and at which time nuclear plants cost about $300M;

2. A 1973, (six years before restart), least cost study by BECHTEL, which found an economic advantage of nuclear over coal generation based on an estimated $300M-$400M cost for nuclear generation;

3. A S&W sensitivity analysis testing the impact of alternative generation predicated on various cost assumptions. The study assumed a cost in '79 dollars would equate to $432.00 per KWH and could range between $368.00 and $618.00 per KWH for nuclear generation, translatable to a cost of $406M and a range of $345M to $576M for a plant the size of RB. The estimate was on a total cost basis because GSU had not then sold any part of RB.

The COMMISSION also found that cost studies dated April 2, 1976, and April 25, 1977, made by and relied upon by GSU management, were merely studies of the cost of completing RB, not economic comparisons of cost of completing RB versus alternative generation.

GSU'S April 2, 1976, study was noted by the COMMISSION to consist of two pages of computations supplemented by two pages of charted results. No basis is given for assumptions employed. It assumes a capital cost of $858 per KWH, indicative of a nuclear construction cost of $806M, $100M less than GSU'S 1975 estimate of RB cost.

The April 25, 1977, study comprises a one page document ostensibly portraying cost in mills per KWH for

RB and the Nelson coal units. No data appears in support of assumptions utilized to generate the numbers results shown. GSU offered no support for assumptions on which these reports were based, except to say they were based on data and information available at the time.

In 1978, GSU conducted an in-house study mandated by management to compare cost of coal versus nuclear generation. The study, based on published cost data, reported nuclear preferable to coal and estimate RB cost to be $1.4B to $1.5B.

The COMMISSION'S experts severely criticize this study as being of little value because it looked backward rather than forward, and reached a conclusion based on bus bar studies of plants on line in 1975, a majority of which cost less than $100M. The plan is also criticized by COMMISSION experts on the ground it does not address cost of RB or any alternative.

GSU argues that its 1976, 1977, and 1978, restart studies were appropriate in that they did, to some extent, involve cost comparisons of alternatives and also that all prior studies indicated nuclear to be less costly over plant life cycle due to lower fuel costs.

It is conceded by GSU that nuclear construction costs were rising at restart decision time but it is argued that so were coal prices as well and that future rises were more likely for coal prices than for nuclear fuel. Accordingly, there was no need for further cost comparison at restart time. GSU argues that because of its peculiar position at restart time, the only questions were whether it could financially afford to build RB as opposed to cancellation, whether it could build RB in time to meet its projected 1985 load demand, and whether it could simultaneously finance construction of additional generation to replace all its gas fired units by 1990. In this regard GSU maintains the COMMISSION erred in finding that

only one plant was needed, which conclusion ignored the mandate for generation replacement.

In November, 1978, GSU'S James Derr filed testimony with the COMMISSION stating RB would cost approximately $1.316B for a 940 MGW unit.

Allegedly, the restart decision was based in part on an NRC study released in December, 1978, entitled "Coal and Nuclear, A Comparison of The Cost of Generating Baseload Electricity By Region". It compared costs in the GSU area and found nuclear cheaper than coal. Although this document is contained in GSU'S files, the record establishes that it was not presented to or considered by GSU'S board as part of the restart study.

In evaluating the November, 1978, construction bids by S&W, B&R, EBASCO, and BECHTEL, MAC noted the bids ranged from $1.67B to $1.77B. MAC'S independent analysis found a 90% probability cost would be $1.7B to $1.88B, disregarding savings realizable from utilization of a "fast track" construction schedule employing rolling 4-10 shifts, meaning shifts working 10 hours daily, four days a week, around the clock.

On July 24, 1980, Don Crawford, GSU'S Board Chairman, informed the COMMISSION that GSU had a likely cost estimate of $2.145B for RB, when GSU'S then official estimate was $1.729B. On March 24, 1979, GSU told its shareholders RB would cost $1.33B, and in 1978 GSU advised the SEC RB would cost $927M.

The COMMISSION employed Kennedy & Associates (KENNEDY), Atlanta, Georgia, economic consultants specializing in utility planning processes and decision making concerning plant construction, cancellation and related matters, to make a prudence evaluation of the RB restart decision.

KENNEDY'S President, Jay B. Kennedy, testified his firm initially decided that whatever damages (disallow-

ance) might be found it would not be so great that it would force GSU into bankruptcy. He explained that a prudence evaluation could produce three possible results. (1) A prudent decision with good results, no disallowance; (2) Imprudent decision followed by fortuitous good results, no disallowance, and; (3) Imprudent decision causing bad results, disallowance. He also stated good faith is totally irrelevant in a prudence evaluation. If the decision maker is unqualified or does not use proper tools, techniques or procedures, good faith does not excuse bad results.

According to Kennedy, load making decisions determines capacity requirements. If load projections show need for additional capacity the question then becomes the least costly way to meet load. Projected load requirements may be fulfilled by additional generation, purchase of power, or institution of conservation measures to reduce load. If the planner opts additional generation to meet projected load, the choice must be least costly over plant life.

Kennedy stated his firm presumed all RB activity prior to 1977, was prudent and no study was made of this aspect of the case because nuclear generation was the industry wide vogue as of that time frame.

Kennedy explained that the first step in the prudence evaluation was Baron's study of GSU'S load forecasting methodology. When Baron's study showed GSU'S system to be deficient, Baron made his own study which produced different results. Lane Kollen was then assigned the task of evaluating GSU'S studies, plans and documentation for the restart decision. Kollen found them lacking in several important respects and reported his findings to Randall Falkenberg, a member of the KENNEDY organization, Falkenberg decided a system planning analysis should be made to determine whether a feasible alternative to RB existed at restart decision time. Falkenberg reported that lignite would have been a viable alternative.

Kollen then made a cost comparison between RB and lignite, which showed lignite least costly and financially feasible as of restart decision time. It was concluded that GSU'S forecast methodology overstated need and was unreasonable for planning purposes and that GSU'S financial and economic studies were based on unreliable computer projections, were unreasonable and replete with errors brought to GSU'S attention shortly after the restart decision.

According to Kennedy, at this juncture the issue was merely the size of the disallowance, which issue was assigned to Baron. It is conceded that in determining disallowance the effect of bankruptcy on GSU'S customers was not considered, the disallowance being based solely on a figure which enabled the rate increase to meet the requirements of financial accounting boards and other financial factors vital to GSU'S survival as a public utility.

Randall Falkenberg, a KENNEDY associate, qualified as an expert in generation planning and construction costs, testified before the COMMISSION that he made a least cost comparison of nuclear versus lignite construction predicated on data known and knowable to GSU in 1978-1979. He chose lignite as an alternate to RB because GSU had lignite in its generation plans, lignite was low in cost and plentiful in the GSU service area, GSU was leasing lignite reserves and had some participation with CAJUN concerning lignite reserves owned by CAJUN. He assumed minemouth operation for lignite generation to minimize cost of transporting fuel from mine to generation station and to also minimize transmission costs from generation station to utility system. He assumed construction of a generic plant, meaning a plant not site specific to RB.

Utilizing what he termed a "Monte Carlo" analytical method, Falkenberg made cost comparisons of lignite and nuclear construction as of November, 1978, and January, 1979, based on data then available and also on

GSU'S then current expansion plans, and material pertinent to GSU'S service area as of these times.

In his January, 1979, study Falkenberg utilized MAC'S analysis of the four bids received by GSU in late 1978, and other data then available to GSU. He obtained a cost range of $1.75B and $2.06B cost for RB. His September, 1979, study utilized then pertinent high definitive estimates which he adjusted to consider Allowance for Funds Used During Construction (AFUDC), meaning interest on interest paid on funds borrowed to meet construction costs. Falkenberg also testified that he included a contingency deemed appropriate by GSU witnesses and assumed a low range of $1.9B and a high range of $2.3B cost for RB. He also used lignite costs based on Texas utilities experiences, not site specific for RB.

Falkenberg stated his Monte Carlo model was in wide use in the early 1970s. It utilized viable factors such as fuel, capital and operating and maintenance costs (O&M) as computer input, He used a baseload factor for each variable and assumed changes in each variable over plant life cycle for each generator type to account for factor changes in future years. The model uses all elements required for comparison of total life-time present value of each alternative. It also involves input of expected low, high and intermediate (mean) cost of each alternative. In this instance he included sale of RB and sale of assets of cancelled RB. Computer runs were made employing variations of each input factor, producing data showing the effect of numerous variations of each or any desired individual factor. Computer analysis of variations enabled hundreds of runs to be made in a very short time. His initial study showed lignite generation would cost approximately $60M less annually than would nuclear over estimated plant life of 35 to 40 years. He found 87% of his runs favored lignite to 5% favoring RB.

When GSU'S experts criticized his analyses because they studied a generic plant rather than a site specific RB

lignite plant, Falkenberg ran a second analysis, using his Monte Carlo system. In this instance he used lignite data, information and material from GSU'S files and other factors known or knowable to GSU at the appropriate time.

The results of these runs indicated rapid escalation of nuclear construction costs and showed that lignite enjoyed a $90M annual advantage over nuclear, for a period of 30 years. Of approximately 500 cases thus run as of September, 1979, 89% favored lignite and 6% favored nuclear construction. Falkenburg noted that lignite offered the additional advantage of fixed fuel cost because the utility either owns or has leased lignite deposits at fixed rates.

GSU argues that Falkenberg's evaluation of the restart program is faulty, inaccurate and incorrect because his criticisms are based on selected documents from GSU'S files and on interviews with only 2 of 10 GSU people involved in making the restart studies. GSU also contends KENNEDY made no effort to determine the reasoning of the GSU staff in reaching the conclusions and recommendations made to the Board for decision.

Falkenberg concedes limited interviews were made with GSU staff because it was felt information thusly obtained would be self-serving and the prudence decision should be evaluated on the contents of GSU'S files and information known or knowable at decision time. In essence Falkenberg testified that if the GSU staff had any input other than that included in the files, it was the duty of the GSU staff to inform the evaluator who could then judge the credibility of the data or reasoning.

It is admitted that not all GSU'S lignite data was submitted to KENNEDY when all such data was requested for Falkenberg's September, 1979, analysis. Falkenberg's analysis was made without benefit of data relative to GSU'S attempts to obtain lignite reserves and other data

concerning lignite. Considerable testimony was introduced concerning the circumstances attending the production and selection of lignite documents from two or three cases of documents produced by GSU personnel. It suffices to say the Court finds there was no intentional withholding of data or information by GSU personnel.

Based on historical data indicating lignite would be more reliable than nuclear generation, Falkenberg's initial comparison assumed lignite and nuclear would have the same capacity factor, meaning percentage of time in service. Factoring reliability into his second analysis he found GSU would require greater reserve capacity for nuclear generation, therefore lignite was preferred for reliability. Falkenberg also made a regression analysis of the trend in nuclear cost based on a study of all plants completed from 1968 to 1973, comparing plants according to size, add on, location and other pertinent factors. It showed that nuclear cost escalated at the rate of 20% or more annually during a period of 7% annual general price rises. He assumed recovery of all sunk cost of RB and allowed \$50M to \$150M recovery of cost of cancelling outstanding RB contracts. He made no offset for sale of RB property on hand or possible sale of RB contracts and no adjustment for increased cost of RB due to TMI because, to do so, would have favored lignite.

On cross-examination Falkenberg admitted the KENNEDY staff did not study all GSU documents, only those deemed relevant by its own staff. He acknowledged his unfamiliarity with GSU'S lignite acquisition program. He agreed his assumptions as to factors such as heat rates, escalation and interest rates are subject to difference of opinion. He insisted, however, that his assumptions were based on sound data and produced results which should have alerted a prudent planner to the rapidly escalating cost of nuclear generation and prompted such a planner to choose lignite as the cheaper alternative.

Also on cross-examination, Falkenberg was presented an industry publication showing nuclear plant capacity of 56.3% compared to 52.3% for coal, and as little as a 20% difference in the cost of nuclear versus coal plants. The study considered the 20% insignificant because of the uncertainty attending cost projections over a 40 year plant life and concluded the differential should not necessarily dictate choosing lignite over nuclear. Falkenberg disagreed on the basis that in his opinion a 20% cost differential was not insignificant.

Falkenberg made a capacity study of 15 boiling water reactors operated in Texas, during the 1975-1978, time frame. It showed an average capacity factor of 53.7% for nuclear and 76% for lignite in 1976, 58% nuclear and 72% lignite in 1977, and 60.8% nuclear and 64% lignite in 1978. He noted that shutdowns of nuclear plants due to regulatory requirements adversely affected their capacity factor.

Falkenberg's initial study indicated 87% of his computer runs showed lignite had a \$60M annual advantage over nuclear while only 5% showed nuclear to have a substantial advantage over lignite. His second analysis, using data more pertinent to RB, showed lignite enjoyed an annual \$90M advantage over nuclear on a percentage of 89% favoring lignite to 6% favoring nuclear, in approximately 500 runs.

Falkenberg's assumptions concerning base factors including capital costs, fuel, prices, inflation, interest charges, AFUDC, interest charges, and debt and depreciation allowances were highly criticized on his cross-examination. He conceded experts could disagree on such factors but defended his assumptions as being soundly based on information known or knowable at the time. In surrebuttal Falkenberg testified he used certain data relied upon by GSU'S management, including higher cancellation cost of RB estimated by GSU'S staff, which factor, when utilized showed a \$54M annual advantage for

lignite generation versus nuclear. Using GSU data, 79% of the cases run favored lignite.

GSU'S FINANCIAL STATUS AT RESTART

KENNEDY'S Lane Kollen, Certified Public Accountant, expert in revenue requirements, economic analysis and financial planning, interviewed 10 members of GSU'S staff concerning GSU'S interim revenue requirements and capabilities at restart time. His particular concerns being fuel availability and pricing, general planning, load forecasting, corporate modeling, financial capability and cost estimates. He evaluated the restart program from July, 1978, to pouring of RB structural concrete in September, 1979, using the economic analytical method typical of that time for comparison of viable least cost alternatives. It involved comparison of all aspects of plant life cycle for each alternative by the Monte Carlo system which BECHTEL used in 1973, and 1974, studies for GSU. Kollen found that GSU'S files contained no documentation of its economic analysis of its generation plan alternatives for comparison with RB and that some of GSU'S corporate model plans were so deficient as to be worthless in his opinion. Others were deemed inconsistent with then current industry standards.

Primarily concerned with financial analysis, Kollen explained the purpose of such analysis is to determine cash flow, financing requirements and impact of rate increases on shareholder earnings.

Conceding the BECHTEL and S&W 1973 and 1974 studies were adequate, Kollen considered them inapplicable at restart time because of intervening changes in capital cost and external environment. In his opinion these studies should have been updated.

Kollen agreed that GSU did not need a completely new Monte Carlo analysis, but maintained that more realistically detailed evaluations should have been made of alternate system costs.

GSU'S 1978 study by James Derr and also one by GSU'S Naylor, were considered by Kollen as merely generic comparisons of the economics of lignite, coal, gas and nuclear plants. In Kollen's opinion, both studies grossly understated cost of nuclear O&M. He noted that Derr's study assumed an average lifetime capacity of 55% and availability factor of 71% for RB which favorably impacted RB because lower capacity rating means higher O&M costs. Kollen also found that Derr's assumed nuclear fuel costs were too low. He also found Derr's 15% capital cost too low considering the then prevailing interest rate was 19%. In addition, Derr did not compound interest costs, meaning he did not consider interest on funds borrowed for construction and repeated the error regarding interest on AFUDC. Kollen found the combined effect of increasing the two latter errors increased RB cost from $1.7B to $1.9B.

Derr's assumed decommissioning cost of RB were criticized by Kollen as being too low. Kollen admitted there was then no data on decommissioning costs of nuclear plants but felt that Derr had understated this factor as Derr had done in the case of other factors affecting nuclear costs. Kollen estimated decommissioning of RB to cost $80M to $120M due to site contamination. Kollen believed Derr underestimated nuclear property taxes, O&M and insurance which is higher for nuclear coverage protection against nuclear accident.

Kollen noted that a March 23, 1979, estimate by GSU'S Naylor, based on a cost per KWH, equated to a $927M cost for RB as compared to MAC'S November, 1978, estimate of $1.7B. In addition, Kollen noted data in GSU'S files showing escalation of RB cost from $1.33B in May, 1977, to $1.729B in September, 1979.

In Kollen's opinion, GSU'S corporate model was not a least cost comparison of alternatives. In his view the model was a secondary tool best used after decision on the issue of best alternative.

Regarding material presented by GSU'S Normal Lee to Board meeting of August 1, 1978, Kollen observed that it contained five or six studies using GSU'S corporate model. In Kollen's opinion the cases utilize assumptions which test the financial effects rather than the economics of generation planning alternatives. He observed that the cases run involve varying degrees of RB ownership, assumed O&M, taxes and fuel costs with little or variation in each study, tantamount to assuming all costs would remain unchanged. Kollen deemed the process flawed because it was illogical to assume costs would remain constant over plant life cycle. Some runs of GSU'S corporate model showed earnings per year to be less for 100% ownership than for 60% ownership of RB. Kollen deemed this unreasonable. Other GSU comparisons assumed rate relief for RB, still others did not. This, in Kollen's opinion, was also unreasonable, because a cancelled plant must be written off. This reduces earnings by requiring payment of interest on unpaid written off debt. Kollen admitted, however, that accounting methods could provide some offsetting tax recovery.

Kollen noted a letter in GSU'S files, dated, May, 1979, to GSU from Cooper and Lybrand, a consulting firm employed by GSU to examine and report on submitted results of GSU'S corporate runs. The letter stated that although GSU had improved its model somewhat, and updated data in studies previously submitted for evaluation, inherent deficiencies remaining in the system could result in erroneous future output from its continued use. The letter also observed that, following interviews with GSU staff, Cooper and Lybrand was reviewing the model's program logic and documentation.

On cross-examination Kollen was shown a letter dated May, 1980, from Cooper and Lybrand to GSU stating that the model was a powerful planning tool. Kollen agreed, provided the tool was properly utilized. He added that such a model is not even a remote substitute for a proper economic analysis of generation plan options.

Kollen made two studies of the impact of disallowance on GSU'S financial status and attained ranges of \$1.0B to \$1.4B on a total company basis. He considered GSU'S ability to resume payment of dividends on common stock in 3 to 5 years and dividends on preferred stock in 1 to 2 years, as well as ability to reenter traditional finance markets, sell common and preferred stock, and issue first mortgage bonds in 3 to 5 years. On this basis he reached a disallowance figure of \$1.4B without regard to the financial effect of the CAJUN buy back agreement which benefits GSU by \$2M.

Kollen admitted discussing lignite options and availability with members of GSU'S staff. He also admitted he did not obtain details of GSU'S lignite reserves, or the time required in siting and permitting a nuclear or coal fired plant. Neither did he discuss generation plan completion dates with GSU staff.

In analyzing graphs submitted to GSU'S August 1, 1978, Board meeting, Kollen testified the material presents a model on which accompanying graphs are based but is devoid of data indicating the basis for the graphs. He noted that some of the model runs were based on inclusion of one or more factors not involved in others; some charts show different results from the model runs and rates of return shown and have significant variations making some revenue results shown extremely suspect. Some runs showed revenue remaining constant whether computed on 100% or 70% ownership of RB, which is illogical. Some runs suggested great risk in building RB before a participation agreement was finalized with CAJUN, therefore a participation study should have been made before the deal was consumated. Some runs contemplated non-traditional rate treatment by the Louisiana regulator in the event RB was cancelled. Kollen deemed this illogical because GSU should have assumed optimal rate treatment and the assumption of non-traditional rate treatment biased the whole study.

Analysis of financial effect on GSU in the event of RB cancellation and no rate relief was forthcoming was made by Kollen, but not as of 1979. He did not make a specific study of whether GSU could finance alternate generation upon cancellation of RB without recovery of its sunk cost. Kollen found capital costs of all other options to be less than and would require less financing than RB. He also found that GSU could recoup disallowed sunk costs of RB through tax write offs and carry backs to prior years and obtain refunds the amount of which he did not calculate.

It was particularly noted by Kollen that GSU'S model did not begin compounding AFDUC until late 1979. He stated this significant factor should have been included in an economic comparison of projected RB costs.

Kollen commented that GSU'S restart data showed lignite could be in operation by 1984, even though siting and permitting had not begun. He characterized as hindsight GSU'S present contention lignite construction would take 7 to 9 years. He referred to GSU data which considered participation in a CAJUN lignite unit coming on line in January, 1985; a lignite unit by GSU on line in September, 1985, and a CAJUN unit participation in January, 1986.

Because MAC'S probabilistic estimate of \$1.7B cost of RB did not compound AFUDC cost, Kollen testified the figure should have been \$1.9B. Kollen also noted that although GSU data planned commercial operation of RB as of November, 1984, at the August 1, 1978, meeting Lawrence Humphrey expressed the opinion that RB could not be built in time to meet projected 1985 summer peak demand.

In Kollen's opinion, an economic analysis must assume rate relief on a traditional basis, that is, recovery of cost, depreciation and return on unamortized investment along with fuel costs and O&M. In this vein he noted that in

1978 or early 1979, the COMMISSION allowed recovery of and on amortization and return on unamortized balance of the Blue Hills cancelled units.

Regarding write off effect on GSU'S financial condition due to cancellation of RB and Louisiana denial of recovery Kollen stated the net effect would be \$120M-\$200M. If Texas allowed recovery it would improve GSU'S financial status. Write off of the Louisiana portion would not be required in the year of denial and would not have to be written off until denial became final after legal procedures, which could take 2 to 3 years. If Louisiana granted any rate relief at all for cancelled RB costs it would mitigate or perhaps completely eliminate the requirement to write off.

Kollen noted that he deemed a GSU inconsistency in that GSU'S files showed lignite construction would cost less than RB, yet GSU argues it could not afford to cancel RB and build less costly lignite, but could afford to finance higher costing RB by traditional methods.

He stated that GSU'S cost comparisons of nuclear versus lignite fuel were distorted by GSU'S failure to compound AFDUC charges until late 1979, at which time GSU began compounding AFDUC charges retroactive to July 1, 1979. On cross-examination he was reminded that if AFDUC was not compounded the amount of such cost could not be recovered in date base. He responded that assuming this to be true, it is not proper to exclude a cost item in making cost comparisons.

The record contains evidence filed by GSU with the COMMISSION indicating decommissioning costs of RB would amount to \$1B at the end of its anticipated 40 year life. This cost was not included in GSU'S comparisons of RB life cycle costs with life cycle costs of alternatives.

According to Kollen, as of December 31, 1978, GSU had an equity of \$600M in RB I and II, \$300M of which was in RB I. GSU had two options, sell the equipment and

enriched fuel for a net pre tax loss of $225M, or cancel the unit, pay all contractors and equipment contracted for at a $430M loss before taxes.

Kollen stated that had GSU cancelled RB and been allowed recovery of cancellation costs, GSU would have been compelled to publicize its exposure to write off but would not have been required to write off at that time. He added that GSU still has the write off problem because of the disallowance, but accounting procedures do not mandate write off until the disallowance becomes final after judicial review. He readily conceded that this would impact GSU'S financial status to some extent, nevertheless, GSU retains access to traditional marketing sources at higher than normal interest rates, but it could still finance lignite construction.

It is conceded that GSU'S charter and indenture provisions restrict borrowing capacity if equity falls to 25% or below. Kollen stated that the write off could leave GSU slightly above 25% equity making borrowing possible. He acknowledged that write off would to some extent affect ability to pay common dividends which, in turn would affect ability to sell common stock.

GSU'S RESPONSE

Norman Lee, Vice President and GSU Board Member, testified the consensus of the February, 1979, board meeting was the decision could go either coal or nuclear although studies had shown nuclear might be slightly higher cost. GSU studies at this time showed nuclear could cost $2B and still be comparable to coal. Other studies indicated nuclear could be 20% higher in cost than coal and yet be cheaper over plant life cycle because of lower fuel cost.

He stated that in 1978, S&W advised it would have to have the go ahead signal for RB by June 1, 1978, to achieve commercial operation in November, 1984, based

on a 78 month construction schedule and an additional 7 to 8 months for fuel loading after plant completion.

Lee conceded price elasticity affects demand in that, as prices rise, demand declines. He acknowledged that GSU'S forecast system was not the best but stoutly defended its adequacy.

Acknowledging the 1979 bus bar studies were not the same as a financial analysis, Lee explained they were merely "what ifs", meaning a method of comparing different alternatives or possibilities. He disagreed with the Cooper and Lybrand criticisms of the system and stated that the system well served its intended purpose.

Lee was of the view that the S&W and BECHTEL comparison costs had to be redone in 1978 and 1979 because GSU'S own staff made similar sensitivity comparisons and performed other like tests at restart time. More particularly, at restart the Board had capital cost factors from finance and O&M and fuel costs from operating personnel.

In considerable detail Lee disagreed with Falkenberg's use of various factors which Lee felt biased Falkenberg's analysis of costs in favor of lignite.

Rebutting Falkenberg's testimony that lignite was less costly than nuclear, GSU offered testimony of David Beekman, expert in computer modeling. His studies of least cost assumed GSU would pay 70% of the "to go" cost of RB, meaning completion cost less sunk cost at restart time compared to total lignite cost based on a 658 MGW unit (GSU'S share of RB). He defended this assumption on the ground GSU would have to spend only the difference between sunk and total cost of RB because CAJUN'S participation agreement obligated CAJUN to fund the project when it came in until CAJUN had spent 30% of cost as of the time of its entry, following which CAJUN would fund 30% of future expenditures.

The COMMISSION maintains Beekman's assumption is false and unreasonably biased his study in favor of nuclear because CAJUN had not signed a participation agreement at restart time, and alternatively CAJUN'S participation was not a full 30% due to the buy back obligation of GSU pursuant to the terms of the proposed agreement.

Beekman severely criticized Baron's, Kollen's and Falkenberg's analyses on numerous grounds including treatment of AFUDC, recapture of loss by tax write off, fuel costs, escalation rates, transmission costs, tax savings, discount rates and other cost factors.

Making his own assumptions and changes regarding cost factors Beekman ran his own computer models and found nuclear to be less costly than lignite, namely $811M in to go costs based on MAC'S estimated cost as opposed to $908M for a lignite plant providing 658 MGWS or 70% of a 940 MGW unit.

Beekman disputed validity of Falkenberg's analysis in that it allegedly failed to consider the economic and financial effect of selling a participation in RB and also because changes in Falkenberg's assumptions altered results in favor of nuclear.

On remand to the COMMISSION Falkenberg testified Beekman's contention was erroneous because it assumed a different treatment of sunk RB costs in the event of completion versus cancellation. Proper analysis, according to Falkenberg, requires consideration of sunk costs and to go costs for the entire RB project whether completed or cancelled.

Christian Pleatsikas, expert in economic analysis and evaluation of econometric models, impugned the results of Falkenberg's initial evaluation of comparison costs of lignite versus nuclear cost. He testified that by merely inputing into Falkenberg's model the expected range of

lignite fuel, namely, 70¢ to $1.00 per million btus expressed in 1978 dollars, as determined by COMMISSION expert Kenneth Watkins, results of Falkenberg's analysis would change. Pleatsikas explained that Falkenberg used identical figures for high and low fuel costs which indicates he employed his mean figure throughout all his runs.

On cross-examination Pleatsikas admitted that if he converted Watkins' figures he would obtain a low of $1.01 and a high of $1.84, the mean of which is $1.42, which is higher than Falkenberg's mean. He acknowledged his price overstated the mid price of fuel as indicated in Watkins' studies. The COMMISSION contends Pleatsikas varied Falkenberg's assumption as well as methodology in reaching a contrary result.

In essence it appears both Falkenberg and Pleatsikas are accused of using selective documents and data as the basis for assumptions when other available documents showed different data and information. The COMMISSION also argues that Falkenberg at least made an analysis whereas Pleatsikas allegedly did not.

Questioned about reasonableness of GSU'S calculations by Lee and Humphrey at the August, 1978, restart meeting, which computations were mentally performed, Pleatsikas state he would not recommend decisions based on two or three minutes mental calculations with no record of underlying assumptions, no record of the basis of the assumptions and no record of results.

Clyde McBride, GSU'S director of finance and planning, expert in financial planning, cost of capital and utility planning, testified concerning the financial impact of RB cancellation on GSU'S ability to finance RB or an alternative generation plant.

He did not make the computer runs involved in the 1978 restart study. He knows the difference between a financial and an economic analysis and believed GSU'S

model capable of making an economic analysis. McBride admitted the model had, and still has some limitations in that it cannot determine net economic loss for income tax purposes on a carry back and carry forward basis. In his opinion, this was insignificant at restart time because GSU had no such problem then as it now has. At restart, carry back and carry forward items could be hand calculated and input into the model, which is essentially an accelerated method of doing arithmetical calculations. He explained that the model is an evolutionary process which can be improved or enhanced at any time. It can produce revenue requirements and costs per KWH elemental data used by economists and is not the only model GSU uses. He denied model output was erroneous as Kollen claimed and also disputed Kollen's statement the model lacked skill and carefulness.

McBride stated the model runs were made by David Smith under McBride's supervision. He challenged Kollen's testimony that Cooper and Lybrand's 1979 letter supports Kollen's opinion that the model was deficient. McBride explained that the Cooper and Lybrand comments related to audit trail or lack of documentation because that firm was an auditing firm. McBride viewed the comments as being preliminary indicating the auditors needed more study to determine precisely what the model does. He provided the requested audit trail. Upon his attention being called to a second letter from Cooper & Lybrand concerning GSU'S model, he construed it as being complimentary and noted the suggestion that some calculations be made by the model rather be hand computed. McBride characterized these recommendations as enhancements.

Kollen's criticism of many of the 1978 cases run on GSU'S model was noted by McBride. He responded by stating that Kollen did not understand the relationship to inputs and results in many instances. In one instance Kollen considered rate of return an input which was ac-

tually an assumption or goal. He responded to each of Kollen's criticisms offering explanations which in his judgment showed run results were reliable, proper inputs were made and appropriate results predicted.

Rebutting Kollen's testimony that GSU'S studies were flawed because they did not manage to achieve a 12% or 13% return on equity (ROE), McBride denied there was any error and also maintained it did not adversely affect results. He noted that for 1980 and beyond the results showed slightly under 12% in some cases and a little over 13% in others. He explained that in some instances projected returns were based on assumptions as to amount and year in which rate relief would be granted. He admitted the state of GSU'S computer model at restart made it tedious to predict ROE but that enough runs were made to satisfy themselves their results were reasonably accurate.

McBride testified that if RB had been cancelled in early or late 1979, GSU could not have met the requirements of technical covenants in its mortgage indenture or debenture indenture to issue either debt or preferred. These covenents, he explained, obligate GSU not to issue debt or preferred unless it can pass the technical test.

In rebuttal of the COMMISSION'S claim GSU could have written off RB in early 1979, and financed construction of a lignite plant, McBride analyzed the effect of such a write off and found the capital ratio for common would have fallen below 25%. He noted that GSU'S charter prohibits payment of common dividends out of retained earnings if common ratio is below 25%. His analysis of write off effect in late 1979, showed common equity again below 25%. His computations were based on the assumption that cancellation of RB involved instant write off which affects capital ratios.

McBride admitted, however, that as a regulated utility GSU would not have to write off RB cost coincident with

its cancellation, but could defer write off until final regulatory action for rate relief. He also admitted that on application for rate relief for write off, earnings would decrease because AFUDC earnings, which are book earnings rather than cash earnings, would cease. If favorable treatment was accorded accrual of AFUDC, earnings would continue until cancellation. He also admitted GSU would not have to write off any part of the cancelled project for which rate relief is allowed, but must write off any disallowed portion thereof.

According to McBride, rate cases are time consuming and from date of cancellation, earnings would drop 40% to 50% due to AFUDC termination. He stated the GSU'S reported 1979 income was \$69M, loss of AFUDC for that year would have been \$33M, reducing 1979 income to \$36M. In 1980, GSU reported income to common of \$92M, loss of \$41M AFUDC for that year would have reduced 1980 income to \$51M. McBride stated that, assuming cancellation did not require booking loss of AFUDC funds, recovery of cancellation funds, if allowed, would take a year to achieve the allowed return, which would be of some help.

McBride testified it was his duty to consult financial firms, lenders and banks concerning financing. Had GSU applied for credit at restart, prospective lenders would make their own analyses including consideration of cash flow and capital ratios. One year without AFUDC would put GSU in the position of not being able to issue securities. Earnings for one year from date of rate increase would be needed before earnings and coverage would allow issuance of securities. He stated it could not be assumed the COMMISSION would allow recovery of write off because the COMMISSION had no track record in this area, therefore, GSU could make no assumption, especially one of full write off recovery.

McBride acknowledged that write off of a cancelled project is not ordinarily required until regulatory treat-

ment of the issue becomes final. He concedes such action usually takes a year. He also acknowledged that if sunk costs are recovered, recovery is allowed on a 10 year basis with return allowed only of the amount involved. He further conceded write off of disallowed sunk costs are not required so long as an appeal is pending from the denial order and that GSU'S application for relief for cancellation of Blue Hills deferred write off for two years.

Numerous case studies were run by McBride testing the financial effect of cancelling RB in favor of an alternative, employing assumptions of loss of AFUDC, recovery in whole or in part of sunk RB costs, time of recovery, receipt of non-traditional rate relief and other factors deemed appropriate. The results indicated GSU would have difficulty meeting its charter and debenture and mortgage covenant requirements governing issuance of debt.

McBride concluded cancellation of RB in early 1979, would mean a 40% to 50% drop in earnings due to coincidental loss of AFUDC which would depress earnings to common ration below 25%. He also concluded cancellation in late 1979, would have lowered common ratio to 23%, 22.9% or 21.6%, meaning no common dividends could be paid. McBride stated that mortgage bond covenants require earnings twice the amount of interest due on all debt other than mortgage bonds before bonds may be issued. For example, earnings of \$30M would allow issuance of other than mortgage bonds requiring payment of \$15M in interest. The \$15M figure is divided by the interest rate on the proposed issue and thus determines how much principal GSU could no longer cover.

One of McBride's runs testing financial effect of RB cancellation was a study of construction of an alternate to RB. It involved a 10 year period and determined that the alternate system could be financed. McBride acknowledged this to be true but added that the study was based

on an unstated assumption of receipt of extra ordinary rate relief.

McBride admitted that GSU'S mortgage and bond covenants do not limit borrowing from banks for terms of less than one year. He maintained, however, that cancellation of RB would have seriously impacted GSU'S ability to finance an alternate system.

Nevertheless, the record shows that GSU issued $35M preferred stock in January, 1979, $75M first mortgage bonds in April, 1979, $35M preferred stock in August, 1979, $38M common stock in November, 1979, and $75M mortgage bonds in December, 1979. These issues funded projects under construction at the time.

THE COURT'S FINDINGS AND CONCLUSIONS

LOAD FORECASTING

The Court finds that GSU'S use of personal interviews with large industrial users and the trending technique with regard to other users to determine load projections was faulty in ignoring the impact of price increase on demand and resulted in an over projection. While the degree of over estimation was not of monumental consequences, it erroneously forecast a premature need from a time standpoint, leading GSU management into believing an immediate decision was imperative when in fact there was additional time for study and planning.

THE LIGNITE OPTION

GSU'S argument that it could not build lignite because of lack of available fuel does not survive close scrutiny of the evidence. Admittedly, the record shows concerted attempts by GSU to acquire lignite reserves. It also shows that acquisitions in Texas permitted some lignite capability to meet at least part of the anticipated load growth. The Court also notes that GSU made no

effort to explore the possibility of some or all of CAJUN'S extensive North Louisiana, lignite holdings, especially considering GSU'S participation agreement with CAJUN.

GSU'S claim it would not start lignite from scratch in 1979, and complete in time to meet expected need is refuted by data in its own files showing lignite could have been built in the required time frame. The record contains credible evidence that a lignite plant could be constructed in six years. Studies presented to GSU'S Board in 1978, included generation plan data for the 1978-1987 period for a lignite plant in 1986, and RB in the summer of 1985, with GSU owning 60% of RB, as one scenario. Also included were plans for commercial operation of one lignite plant in 1985, and one in 1986, assuming 40% write off in rate relief as another scenario. Also included was an alternative for two lignite plants in 1985, and one in 1986, under a scenario assuming no write off help. GSU'S official generation plan for 1979, included a 600 MGW lignite on line in 1985. It appears GSU did feel it could build lignite capacity by 1985, two years before it was actually needed.

GSU argues strenuously that it opted not to build lignite to achieve diversity noting that if it had built lignite as the COMMISSION'S experts recommended, it would have been locked into lignite. It is argued that since GSU had to replace all of its gas fired units by 1990, going lignite in 1970, would have committed the entire system to lignite.

In this regard, the Court notes that GSU'S management decided prior to restart that coal was not a viable alternative because of price, transportation costs, and uncertainty of supply due to labor interruption. Likewise GSU eliminated conversion of its gas fired generators to fuel oil due to conversion costs and resultant capacity loss. These considerations left only nuclear.

Although GSU contends its analysis of position at restart time is supported by the records, the Court finds GSU'S actions inconsistent with its claim nuclear generation was mandated for diversification purposes. In this regard, the record is clear that GSU made a concerted effort to sell RB both in domestic and foreign markets, without success due to a market glutted with nuclear plants. It is readily apparent that, had RB been sold, as GSU so earnestly attempted to do, GSU'S sole alternative would have been lignite with no hope of diversification. Under this scenario GSU would be 100% lignite.

LEAST COST OPTION

As did the COMMISSION the Court finds the 1978-1979 GSU restart studies were not side by side economic comparisons of alternate fuel sources for generation plants over plant life cycle. Such studies should have been made at the time of restart.

The conclusion of GSU management that the historical 20% annual increase in nuclear construction cost would continue at a lower rate offsettable by utilization of a fast track construction schedule, is unsupported in the record.

Based on the evidence, the Court concludes there is a reasonable basis for the COMMISSION'S conclusion that lignite was the least costly alternative to GSU at restart time.

TIME REQUIRED TO BUILD RB

The assumption that RB could be built and placed in service within 50 months of September, 1979, by building on a fast track basis using rolling 4-10 labor shifts, is contrary to construction estimates of GSU'S own experts and estimators. The shortest estimated construction time of record is 76 to 78 months. Under the circumstances it appears that GSU'S decision that construction time could be reduced by over two years was unrealistic.

TMI

The COMMISSION'S order rendered November 15, 1988, on remand, makes no reference to the prudency of GSU'S reaction to TMI. Counsel for the COMMISSION argues that GSU was imprudent in improperly assessing the ultimate adverse effect of the incident upon nuclear construction costs. It is shown that ensuing governmental regulations imposed higher, enormously costly safety standards on nuclear construction to protect the public from exposure to dangers resulting from a nuclear melt down, particularly multiple back up systems to prevent core damage and remote control facilities affording off site shut down capacity in case of a disaster. In view of the finding of imprudence, the court assumes COMMISSION'S finding on this issue was unfavorable to GSU.

The court notes testimony by COMMISSION witnesses to the effect that prior to TMI, for the period 1974-1976 nuclear construction starts outnumbered nuclear cancellations by a ratio of more than 2 to 1. For the period 1977-1980, nuclear cancellations outnumbered nuclear completions by more than 4 to 1. GSU countered this data by showing numerous units having investments comparable to RB when TMI occurred, were continued and some of which were completed after RB was in commercial operation.

Considering the entirely of the prudency testimony, the Court finds, holds and concludes reasonable basis exists in the record for the COMMISSION'S finding of imprudence on the part of GSU management in this matter. Accordingly, judgment will be rendered herein affirming the COMMISSION'S determination of imprudence.

THE DISALLOWANCE

STATE alone contends the COMMISSION erred in allowing GSU a $1.6B recovery on the ground the allowance is totally inconsistent with the finding that all

expenditures on RB I subsequent to 1979, were imprudent. STATE maintains only prudent investments are subject to recovery, therefore, recovery should be limited to the amount spent on RB I, prior to 1979, about $450M plus cancellation costs of the project.

It is conceded by STATE that the COMMISSION has discretionary authority to adjust a disallowance on based on the financial condition of a utility if the evidence supports such a finding and also provided the evidence justifies the conclusion that the public interest warrants the adjustment. STATE argues there is no such evidence of record.

As noted by STATE, the COMMISSION based its disallowance figure on the recommendation of its experts who found a $1.4B disallowance was mandated to prevent GSU'S bankruptcy which the experts believed would not be in the public interest.

STATE correctly argues that GSU presented no evidence to show disallowance of total imprudent investment would bankrupt the company. Additionally, STATE maintains the only evidence concerning the effect of GSU'S bankruptcy was offered by STATE. It shows that GSU'S reorganization either under or outside of bankruptcy aegis might be in the public interest under the facts of this case.

The Court finds the COMMISSION'S decision regarding the disallowance figure was a lawful exercise of its discretionary authority. It is a balancing of equities between shareholders and rate payers based on recommendation of expert witnesses who considered an involved public interest. Accordingly, judgment will be rendered herein affirming the COMMISSION'S disallowance figure of $1.4B. United Gas Pipe Line V. La. Pub. Serv. Comm., 130 So. 2d 652, 241 La. 687 (1961).

THE PHASE IN SCHEDULE

The first and second year phase in schedule of rate increases granted herein have been implemented as ordered by this Court on February 18, 1988. There appears to be no dispute concerning the phase in figures of $50M for the third and fourth year phases and $37,400,000.00 for the fifth year phase. In addition the COMMISSION'S order U-17282-D, issued November 15, 1988, fixed the ROE at 13.00% concerning which action GSU has filed no complaint. Accordingly, judgment will be rendered herein ordering the COMMISSION to implement phases 3, 4, and 5 of the phase in plan, as herein set forth and initially ordered on February 18, 1988, reserving to the COMMISSION the right and authority to change either the amount of a phase in step or the ROE after a full hearing of the matter.

THE COMMISSION'S OFFER TO TREAT THE DISALLOWANCE AS A DEREGULATED ASSET VERSUS GSU'S INVENTORY PLAN FOR DEALING WITH THE DISALLOWANCE

In the hearings before this Court, GSU presented an "inventory plan". In essence it declares the disallowed cost of RB a deregulated asset in resolution of the disallowance controversy. It provides that an amount of capacity equivalent to the disallowed portion of RB I would be associated with the deregulated asset. It calls for withdrawal of the COMMISSION'S imprudence determination and automatic return of the deregulated asset to rate base with recovery of and on the disallowance under specified conditions. GSU'S experts testified such an exclusion plan is vital to maintain the economic competitiveness of its rate base because, admittedly, ratepayers could not support rates to pay all RB costs. These same witnesses testified creation of the deregulated status of the disallowance would afford the company additional finan-

cial relief by reducing the amount of write off otherwise required on company books.

The COMMISSION'S consultants recommended rejection of the inventory plan and in lieu thereof recommended a deregulated asset plan which, in effect would deregulate the disallowance and consider it an unregulated asset. Implicit in the COMMISSION'S proposal is the proposition that the disallowance for imprudence stands. It also provides that the $1.4B disallowance is excluded from rate base with no provision for its return except at the sole option of the COMMISSION. In addition, the plan requires COMMISSION approval of and/or sales both on and off system, imposes conditions and restrictions regarding sale of the deregulated asset, and creates presumptions allocating capital additions between the regulated and deregulated portions of RB I. Also included is an offer to withdraw the COMMISSION'S appeal from the injunction ruling of this Court, coupled with the requirement that GSU dismiss its appeal from the COMMISSION'S order on the merits.

As previously noted, GSU seriously considered accepting the COMMISSION'S deregulated asset plan and virtually concedes it would have accepted but for the fact STATE insisted it would not dismiss its appeal from the order granting GSU recovery of $1.6B of the cost of RB I.

It is obvious to the Court that in offering the deregulated asset plan as a solution to the controversy between the COMMISSION and GSU, the COMMISSION, on recommendation of its experts, made a policy decision concerning treatment of the disallowance found. Equally apparent is the basis of the offer, namely, COMMISSION action offering GSU the hope of future recovery of some or all of the disallowance found, in the form of tax relief by write off or possible recovery of all or part of the disallowance by inclusion in rate base under circumstances deemed appropriate by the COMMISSION.

In this regard the Court notes and invokes its authority pursuant to LSA-R.S. 45 Part V PSC, Section 1192, to change modify, alter or reverse a COMMISSION order as the ends of justice may require. Considering the circumstances peculiar to this case, the Court finds the ends of justice will best be served by ordering the COMMISSION to implement and enforce its proposed deregulated asset plan in a manner not inconsistent with the views expressed herein. Judgment will be rendered herein accordingly, reserving to both COMMISSION and GSU the right to appeal the Court's decision on this issue.

THE RATE ALLOCATION

GSU and all Intervenors except STATE contend the COMMISSION'S allocation of rate increase on a KWH basis among all customer classes, results in the subsidization of residential users by industrial and commercial customers to an even greater extent than presently exists. On this basis it is argued that allocation should be on a cost of service basis.

At the hearing before the COMMISSION four rate allocation plans were presented based on cost of service to individual customer classes. Each plan makes a different recommendation.

On January 26, 1988, the COMMISSION issued Order No. U-17282C, rejecting allocation of rate increase on cost of service basis and allocated the increase on a per KWH consumption basis among all customer classes. The basis for the allocation was simply that the COMMISSION reviewed available allocation methods and adopted the KWH formula because it had made similar allocations in five other rate cases between December 18, 1979, and October, 1980. The COMMISSION did not consider in any detail the merits of KWH allocation of increase versus cost of service in relation to the facts and circumstances of this case. Its decision was based solely on precedent.

GSU and all Intervenors except STATE urge the Court to decide the allocation issue on the evidence of record.

It is not the Court's function to set rates or determine rate allocation design as a matter of first impression. This function rests exclusively in the COMMISSION. The Court is limited to determination of the reasonableness of the COMMISSION'S decision in such matters.

In this instance the Court is unable to determine reasonableness of the COMMISSION'S allocation order simply because no reasons have been given by the COMMISSION on which the reasonableness of its decision can be determined. Since the Court may not make the decision as a matter of first impression the case must be remanded to the COMMISSION for further hearing and a decision based on stated reasons supported by findings facts reviewable by the Court. See La. Power & Light Co. V P.S.C., 523 So. 2d 850 (La. 1988); Central La. Elec. Co. V La. Pub. Serv. Comm., 437 So. 2d 278 (La. 1983); Giallanza V. La. Pub. Serv. Comm., 412 So. 2d 1369 (La. 1982). Remand of this matter is mandated to the COMMISSION for the purpose of holding such additional hearings as the COMMISSION may deem proper for resolution of the question whether rate allocation in this case shall be on a per KWH cost of service basis. The COMMISSION is directed to give reasons supportive of its decision on the issue. Judgment will be rendered herein accordingly.

Judgment will also be rendered herein dissolving the preliminary injunction issued by this Court on February 18, 1988, is hereby dissolved and set aside.

Baton Rouge, Louisiana, October —, 1989.

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Judge Ad Hoc

APPENDIX D

Order No. U-17282-E of the Louisiana Public Service Commission (March 1, 1989)

BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION

Docket No. U-17282

ORDER NO. U-17282-E

GULF STATES UTILITIES COMPANY EX PARTE
IN RE: PROPOSED REVISION OF ITS
ELECTRIC RATES AND CHARGES WITHIN THE
STATE OF LOUISIANA, PHASE II

This case is before the Commission on the application of Gulf States Utilities Co. ("Gulf States") for the second step rate increase of $50 million ordered by the Nineteenth Judicial District Court for the Parish of East Baton Rouge ("district court"). *Gulf States Utilities Co.* v. *Louisiana Public Service Commission*, No. 325,224 (19th J.D.C.). Gulf States filed its application for the increase on December 27, 1988. The Commission conducted an expedited review of the request to permit the issuance of an interim order by February 18, 1989, the deadline for compliance with the district court's order. Because the Commission's regular meeting was

scheduled for February 28, 1989, Gulf States voluntarily extended the deadline to that date.

On December 15, 1987, the Commission issued Order No. U-17282-B, which ruled on Gulf States' application for a rate increase relating to the commercial operation of its River Bend I nuclear plant. Gulf States owns 70 per cent of this plant, which was constructed at a cost of approximately $4.4 billion. Gulf States proposed that the rate increases necessary to support this plant be phased in over a period of several years.

The Commission made a thorough review of the rate request of Gulf States and conducted a prudence examination relating to the decision to construct the nuclear plant. Based on the recommendation of its consultants, J. Kennedy and Associates, the Commission determined that $1.4 billion of Gulf States' $3 billion investment in the plant was imprudent. The Commission determined that Gulf States should have canceled the plant in 1979, when construction of the plant was suspended, rather than restarting the construction process. The economic penalty of $1.4 billion was based on the cost to cancel River Bend I and construct a lignite plant; the Commission ruled this option would have been a reasonable planning decision for Gulf States.

The Commission granted Gulf States a rate increase of $63 million. This increase was based on a 12 per cent rate of return on equity, rather than the 14 per cent return on equity recommended by Kennedy and Associates. The Commission adopted a phase-in plan for Gulf States but did not specify in its order the amount to be deferred in the first year or provide a schedule of future rate increases to recover the deferral.

Gulf States took an appeal to the district court and also requested injunctive relief. In the injunctive phase of its suit, Gulf States requested that the district court raise the allowed rate of return on equity to 14 per cent.

Further, it asked that the court adopt a phase-in plan proposed by Gulf States, which the company contended was necessary to permit the deferral of revenues for River Bend I.

The district court granted the injunction and adopted the phase-in plan proposed by Gulf States. It ordered a first year rate increase of $92 million and subsequent annual rate increases. The district court's judgment, issued February 18, 1988, provided the following schedule for its phase-in of the River Bend I revenue requirement:

First year (2/18/88)	$92 million
Second year	$50 million
Third year	$50 million
Fourth year	$50 million
Fifth year	$37.8 million

The appeal of the Commission's prudence decision was heard by the district court during the Summer of 1988. New evidence was presented by Gulf States and the case remanded to the Commission for further proceedings. In November, 1988, the Commission issued an order proposing a compromise, in which the imprudent investment in River Bend I would be treated as a rate base exclusion. Gulf States ultimately rejected the compromise, and the case was returned to the district court, where it is currently being briefed.

Gulf States did not file for the second step of the district court-ordered phase-in until December 27, 1988. Given the short time between the filing of the application and the dates scheduled for the implementation of the $50 million increase, the Commission was unable to conduct a full-scale ratemaking examination to determine whether offsetting factors could reduce the need for a rate increase. The Commision did have sufficient time,

however, to examine the rate of return issue and conduct a preliminary examination of the deferrals associated with the phase-in program. It scheduled hearings for the examination of these preliminary issues. A full ratemaking examination of Gulf States will be conducted after the issuance of this order.

The preliminary examination of Gulf States' affairs indicates that the phase-in program may be substantially modified without any conflict with the district court's injunction. Adjustments are appropriate in three areas. First, given the increased financial strength of Gulf States, a rate of return on equity of 13 per cent, rather than 14 per cent, is appropriate. Second, the obligation of Gulf States to "buy back" a portion of River Bend I from Cajun Electric Power Cooperative, Inc. ("Cajun"), its co-owner, is being reduced in annual increments. The reduced revenue requirement for the buy-backs may be offset against the increasing revenue requirement under the phase-in plan. Third, the Commission has adjusted the data submitted by Gulf States to exclude amounts deferred prior to February 18, 1988 from the phase-in plan. Allowing the recovery of this amount, approximately $31 million, would constitute retroactive ratemaking.

On the rate of return issue, Gulf States submitted the testimony of Dr. Charles Olson to support the proposition that the appropriate rate of return on equity is 14 per cent or more. Dr. Olson concluded that the required rate of return on equity exceeds 14 per cent. The Commission's consultant, Dr. Jay Kennedy, concluded that the required rate of return on equity is in a range of 12.17 percent to 13.79 per cent, and recommended an allowance of 13 per cent. The Commission believes that 13 per cent is the appropriate rate of return on equity.

The analysis of both consultants supports this conclusion. Both relied heavily on a discounted cash flow ("dcf") analysis and indicated that this method is the

best means of determining the required rate of return on equity of a regulated utility. When properly applied, the analysis of both experts supports the Commission's decision.

The discounted cash flow method ordinarily consists of two components, yield and growth. Yield is the dividend of a company divided by its market price. An investor expects to receive this yield, plus an increase in the value of his stock produced by growth. Experts who use the dcf method often choose a group of companies comparable in risk to the utility being examined and base their recommendations upon an analysis of these comparable companies.

In this case, Dr. Olson and Dr. Kennedy agreed on the comparable companies, but differed in their conclusions. The Commission believes that Dr. Kennedy's analysis is correct. First, the experts drew similar conclusions regarding the dividend yields produced by the comparable companies. They differed sharply, however, in their analysis of expected growth. Dr. Olson testified that two good methods of estimating expected growth are 1) use of historical growth rates and 2) reliance on the published predictions of financial analysts, who are relied on by investors in the market. Dr. Olson relied on neither of these methods, but made his own estimate of a higher expected growth rate. Further, Dr. Olson added 100 basis points to his derived cost of equity to reflect what he considers to be special risks associated with Gulf States. Dr. Olson indicated that this special risk allowance reflects uncertainties for imprudence penalties like that experienced by Gulf States. Had Dr. Olson simply relied on his own computed dividend yield for the comparable companies, plus the financial analysts' predictions for their growth, his investor-required rate of return would have been about the same as Dr. Kennedy's.

Dr. Kennedy, as noted, relied on the same group of comparable companies as that proposed by Dr. Olson. Dr.

Kennedy computed the average dividend yield based on a recent six month period, adjusted forward to account for dividend increase, to be 9.24 per cent. He noted that historic growth rates for the comparable companies have been negative or near zero. He therefore added the growth expectations published by financial analysts—2.93 per cent. This computation produced an investor rate of return requirement of 12.17 per cent.

Dr. Kennedy also performed a risk premium analysis as a check on his dcf computation. The risk premium analysis produced a rate of return requirement of 13.79 per cent. Dr. Kennedy chose 13 per cent as the approximate mid point between the allowances produced by the dcf method and the risk premium analysis. He testified that this approach allows Gulf States a premium for its special risks.

The Commission will accept the analysis of Dr. Kennedy. His approach, which uses financial analysts' growth expectations, is more likely to reflect investors' expectations than the personal opinion of Dr. Olson. Moreover, the special risk premium proposed by Dr. Olson is unjustified. Much of the special risk of Gulf States results from its own imprudence, which led to the $1.4 billion disallowance of investment in River Bend I. Adding to the rate of return to compensate for this risk is simply a means of offsetting the imprudence disallowance. If any special risk allowance is to be made, it should be no higher than the one proposed by Dr. Kennedy.

There was little controversy concerning the combination of the Cajun buy-back schedule and the River Bend phase-in schedule. This approach is the best method of handling the revenue requirements for the buy-backs and the phase-in, since both relate to River Bend. In addition, the combination of the *reducing* revenue requirements for the Cajun buy-backs and the *increasing* revenue requirements for the phase-in has the effect of substantially reducing the overall phase-in for River Bend and providing a bet-

ter idea of what Gulf States' actual rate increase requirements will be for this unit. Therefore, the Commission will accept the adjustment proposed by Mr. Lane Kollen of Kennedy and Associates on this point.

With respect to the $31 million deferral, Gulf States included this amount in the total deferral it proposes to recover through the phase-in plan, although it relates to a period prior to the issuance of the district court's order. Gulf States did not book the deferral until after the preliminary injunction was issued. This action is inconsistent with Gulf States' position in the district court, which was accepted as the basis for the preliminary injunction, that a deferral could not be booked in the absence of assurance as to the amount of the deferral and the schedule for its recovery. Gulf States' witnesses testified in the district court that the amount of any deferral under the Commission's order could not even be determined. The district court's ruling—which accepted these arguments—necessarily establishes that a valid deferral did not exist prior to the issuance of the preliminary injunction.

Under the decision of the Louisiana Supreme Court in *Louisiana Power & Light Co. v. Louisiana Public Service Commission*, 523 So. 2d 850 (La. 1988), the retroactive establishment of a deferral is prohibited as retroactive ratemaking. In that case, the Court ruled that the Commission would be prohibited from retroactively establishing a deferral as a replacement for rates that the Commission proposed to refund to customers. Id. at 857. In view of that decision, the Commission cannot retroactively establish a deferral for the period prior to the issuance of the district court's injunction. Therefore, the Commission will accept the adjustment proposed by Mr. Kollen, which removes the $31 million from the deferral included in the adjusted phase-in plan.

In addition, the Commission will amend its prior decision with respect to River Bend II to permit the Com-

pany to recover its investment in that unit over a period of 10 years. The investment in River Bend II will be excluded from the rate base, however, so that the company is precluded from earning a rate of return on it. The approach of allowing a return of, but not on, cancelled plant is widely accepted in regulatory jurisdiction throughout the United States. This action reflects an appropriate balancing of investor and consumer interests. The annual revenue requirement will be included in the adjusted phase-in plan.

After the implementation of the adjustments described in this Order, the deferral for the second year is $92,271,-000. The phase-in schedule is as follows ($000):

Period 2 (Phase II)	37,971	92,271
Period 3 (Phase III)	38,000	40,330
Period 4 (Phase IV)	22,098	(4,930)
Period 5	0	(19,793)
Period 6	0	(34,276)
Period 7	0	(45,970)
Period 8	0	(55,238)
Period 9	0	(67,178)
Period 10	0	(75,701)

The Commission will allocate the rate increase among customer classes in proportion to the contribution of each class to the company's base rate revenues. This action will preserve the current relationship of the customer classes. This approach is reasonable given the absence of complete, current cost of service data in this record. Further, even if cost of service studies were submitted, it is likely that a study would not be produced that reflects the fuel diversification purpose for the construction of River Bend. The Commission believes that this purpose should be considered in the allocation of rate increases relating to that unit.

For the foregoing reasons,

IT IS ORDERED that Gulf States be and hereby is granted authority to implement a rate increase of $37, 971,000, effective immediately, pursuant to the preliminary injunction issued by the 19th Judicial District Court. The rate increase shall be allocated among customer classes in proportion to the contribution of each class to the base revenue of the Company. The consultants and counsel of the Commission are instructed to conduct a full ratemaking examination of Gulf States, on a schedule to be established, and report their findings to the Commission.

BY ORDER OF THE COMMISSION
BATON ROUGE, LOUISIANA
March 1st, 1989

/s/ Don Owen
Chairman

/s/ Thomas E. Powell
VICE CHAIRMAN

/s/ Kathleen B. Blanco
Commissioner

LOUIS J. LAMBERT, JR.
Dissenting
Commissioner

/s/ Marshall B. Brinkley
Secretary

JOHN F. SCHWEGMANN
Dissenting
Commissioner

APPENDIX E

Order No. U-17282-D of the Louisiana Public Service Commission (November 15, 1988)

BEFORE
LOUISIANA PUBLIC SERVICE COMMISSION

GULF STATES UTILITIES COMPANY, EX PARTE, IN RE: APPLICATION FOR APPROVAL OF AN INCREASE IN RATES FOR RETAIL ELECTRIC SERVICE
DOCKET NO. U-17282

ORDER NO. U-17282-D

A. *INTRODUCTION*

This case is before the Commission on remand from the Nineteenth Judicial District Court in *Gulf States Utilities Co. v. Louisiana Public Service Commission*, No. 325,224 and *Gulf States Energy Users Group v. Louisiana Public Service Commission*, No. 328,029 (La., 19th JDC). The district court remanded the case to the Commission for further consideration, pursuant to the provisions of La. R.S. 45:1194, after receiving new evidence on the appeal of Order No. U-17282-C.

On December 15, 1987, the Commission issued Order No. U-17282-C, which determined the merits of a rate application filed in 1986 by Gulf States Utilities Co. ("Gulf States"). The rate application primarily resulted from the commercial operation of the River Bend I Nuclear Generating Facility, which was constructed by Gulf States. Gulf States owns 70 per cent of the River Bend I Unit; the other 30 per cent is owned by Cajun

Electric Power Cooperative, Inc. River Bend I went into commercial operation on June 16, 1986.

Order No. U-17282-C determined that Gulf States was imprudent in its decision to restart the construction of the River Bend I nuclear unit in early 1979, after a two year suspension of construction, and that the Company should have instead constructed a lignite unit. The Commission determined that $1.4 billion of Gulf States' $3 billion investment in the unit was imprudent and disallowed the Louisiana portion of this investment from the rate base in determining the revenue requirement of the company. This decision was based on the recommendation of the Commission's expert consultants, Kennedy and Associates, who determined that the damages resulting from the imprudence of the company were actually higher than $1.4 billion, but that the $1.4 billion disallowance was the largest disallowance that Gulf States could withstand and remain financially stable.

The Commission also determined that the cancelled investment cost in River Bend II would never be used and useful and the Company should not receive a return of its investment in the unit or a return on the unamortized investment. Further, the Commission determined that the allowed return on equity should be 12 per cent rather than the 14 per cent rate of return recommended by Kennedy and Associates. The Commission ordered that an annual rate increase of $63 million be placed in effect; this increase was based on a phase-in plan developed by Kennedy and Associates, adjusted to reflect the 12 per cent rate of return on equity and the disallowance of River Bend II costs.

Gulf States brought an action for injunctive relief in the Nineteenth Judicial District Court. *Gulf States Utilities Co. v. Louisiana Public Service Commission*, No. 325,224 (19th J.D.C.). On February 18, 1988, the district court issued an injunction granting a $92 million first year rate increase to Gulf States, reflecting a rate

of return on equity of 14 per cent. The district court also implemented a phase-in plan that provided for rate increases in four annual installments. The rate increases ordered by the district court were the following:

First Year	$92,000,000
Second Year	$50,000,000
Third Year	$50,000,000
Fourth Year	$50,000,000
Fifth Year	$37,740,000

These increases did not include any provision for River Bend II. The district court's injunction included several adjustments proposed by Gulf States to the phase-in plan developed by Kennedy and Associates. The injunction is currently on appeal to the Louisiana Supreme Court. *Gulf States Utilities Co. v. Louisiana Public Service Commission*, No. 88-CA-0709 (La.).

A trial on the merits of Gulf States' appeal was conducted by the district court beginning June 20, 1988 and concluding July 26, 1988. The case was tried by the Hon. Paul B. Landry, Jr., sitting as Judge Ad Hoc of the Nineteenth Judicial District Court. The proceeding centered on two issues: 1) the imprudence determination of the Commission, and 2) the allocation of the first year rate increase imposed by the Commission, which spread the increase among customers according to their energy usage. In addition, Gulf States proposed an "inventory plan" as an alternative to the imprudence disallowance of the Commission.

B. *IMPRUDENCE*

Much of the evidence offered at the trial was a repetition of evidence offered in the hearings before the Commission. This evidence was offered to familiarize the district court with the complex issues associated with the imprudence disallowance. It is not necessary for the Commission to deal on this remand with evidence al-

ready considered in Order No. U-17282-C. Substantial evidence, however, was new, and the Commission will discuss it in this order, along with the evidence presented at the hearing on the remand conducted before Hearing Examiner Roy Edwards on November 7, 1988.

1. *Feasibility of Lignite Option.* In recommending the $1.4 billion imprudence disallowance, Commission's consultants determined that Gulf States should have pursued another generating option in 1979, rather than deciding to restart the construction of River Bend I. They determined that a more reasonable option would have been the construction of a lignite unit. They further based the determination of the "damages" for imprudence on the likely cost of cancelling River Bend I and constructing a lignite unit. At the trial, Gulf States presented evidence through its former president, Norman Lee, suggesting that the company would not have been able to obtain adequate lignite reserves to fuel a lignite unit, or would not have been able to construct a lignite unit by the time the company believed it would need River Bend I. These arguments are unpersuasive and are contradicted by the documentary evidence.

First, there is substantial evidence that adequate lignite reserves existed in and around the Gulf States service territory. The testimony of Jeffrey Watkins, a witness presented at the hearings before the Commission, established that lignite was available in substantial quantities at reasonable prices. Moreover, Mr. Lee conceded that lignite was available in North Louisiana. Gulf States, according to his testimony, *chose* not to acquire these reserves. Other Louisiana utilities have developed and used these lignite reserves to fuel generating units. Further, Mr. Lee's testimony established that certain difficulties ultimately arose in using lignite reserves in Texas that had already been identified or purchased by Gulf States, but did not establish that Gulf States would have been unable to use these and other available re-

serves had a concerted effort been made to pursue the lignite option. After Gulf States decided to pursue its construction of River Bend I, its ability to finance other options and its declining load growth made it impractical and unnecessary to immediately pursue the lignite alternative.

Second, according to its own planning documents, Gulf States believed in 1978 that lignite was a practical generation alternative that could be constructed within the same time period as River Bend I. In its so-called 1978 "restart studies," Gulf States assumed in two cases that it could construct a lignite unit to serve the summer peak in 1985, which it also assumed for River Bend I. Mr. Lee denied that Gulf States considered these assumptions to be realistic, contending that the 1978 restart package consisted of "what if" scenarios that were impractical or unlikely. He indicated that the official generation expansion plan of Gulf States was the only reliable indicator of practical generation expansion alternatives. The 1979 official generation plan, however, provided for a lignite unit to be constructed by September, 1985, and further provided for the construction of three additional lignite units and the construction with Cajun Electric of two lignite units. In 1980, the official generation plan also provided for the construction of lignite units as the major alternative after the completion of River Bend I and the Nelson 5 coal unit. Furthermore, Mr. Lee conceded that he made public statements in the 1979-1980 time period citing the lignite option as a major source of generation for Gulf States.

In addition, the evidence shows that Gulf States was continually optimistic concerning the time necessary to construct River Bend I. Given the delays historically associated with the construction of nuclear units, and the confounding impact of the Three Mile Island nuclear accident, it would have been unreasonable to choose the nuclear option based on optimism that the time for con-

struction of a nuclear unit could be minimized more easily than that for a lignite unit.

In light of the evidence, it is reasonable to conclude that Gulf States could have acquired sufficient lignite reserves and could have constructed a lignite unit within an acceptable time period after 1979 to replace River Bend I. Therefore, the new evidence does not provide a valid basis for altering the Commission's imprudence disallowance.

2. *Sufficiency of Economic Analyses.* One of the major conclusions of the Commission was that Gulf States did not perform adequate economic analyses at the time of the restart decision to support a conclusion that River Bend I was the least cost alternative for providing service. When Gulf States made its initial decision to construct River Bend I, it secured comprehensive studies from outside consulting firms to establish the economic wisdom of the decision. In contrast, when the "restart" decision arose at the end of the two year construction suspension from 1977 to 1979, Gulf States made no substantial economic studies and did not secure site-specific economic studies from outside consultants. At the trial, Gulf States initially suggested that economic studies were unnecessary given the experience of its executives, but subsequently contended that a) sufficient "back of the envelope" studies were performed, b) general studies in the industry supported the decision, and, on rebuttal, c) the 1978 restart package could serve as an economic analysis. These contentions are not persuasive.

Gulf States did not provide information concerning the assumptions inherent in its alleged "back of the envelope" studies, or the validity of the conclusions reached in the so-called studies. Thus, it is impossible to determine that they could have served as legitimate least cost economic analyses. More important, the few "studies" produced by Gulf States reflected assumptions regarding the nuclear option that were either contradicted by the

facts or unrealistically optimistic. These "studies" were simply mathematical computations performed on a few sheets of paper, containing incorrect or unrealistic assumptions. For instance, the so-called study presented to this Commission by Gulf States in 1978 to justify the nuclear alternative assumed that River Bend I would cost about $1.3 billion. At the time, Gulf States' best estimates established that River Bend I would cost $1.5 billion to $1.9 billion. This 1978 study was referred to by Mr. Lee as a "clear" example of Gulf States' thinking at the time. Further, other documented economic computations produced by Gulf States contained similar flaws.

The industry analyses produced by Gulf States could not conceivably justify the decision to restart River Bend I. First, these studies were largely based on outdated assumptions. Second, the studies were not site-specific and therefore could not establish that River Bend I was the least cost alternative vis-a-vis other options available to Gulf States. Third, unlike Gulf States, the industry did not pursue the nuclear option after the Three Mile Island nuclear accident. Apparently, other companies in the industry based their decisions on updated analyses showing that nuclear generation was not the best alternative.

The reference to the 1978 restart package as a possible economic analysis reflects a surprising turnabout by Gulf States. At the beginning of the court trial, in an attempt to discount the assumptions in the restart package regarding the lignite option, Mr. Lee referred to these studies as mere "what if" analyses that were not necessarily realistic. Gulf States subsequently claimed, however, that the "what if" studies could justify the decision to build River Bend I. Moreover, the restart package was not an *economic* analysis, but a *financial* analysis. It could not justify the River Bend decision in an economic sense because a) it did not study lifetime costs of

generation alternatives; b) it did not adequately isolate specific generation options for study; c) it did not eliminate the confounding effect of the variation of assumptions other than the generation alternatives; and d) the corporate model used to develop the restart package reflected flawed input and output assumptions, as described by Mr. Kollen. Therefore, this attempt to justify the River Bend I decision is unpersuasive.

3. *Need for the Nuclear Option.* Gulf States also asserted at the trial that the nuclear option was the only reasonable alternative in light of fuel constraints, to provide diversity and reliability to its system. This assertion was effectively rebutted by Kennedy and Associates, whose witnesses testified that lignite would provide diversity. The coal lignite option was actually *favored* under the federal law restricting the use of natural gas in electric generating plants. Moreover, since the source of lignite fuel would be located in or near the Gulf States service territory, on property owned or leased by the company, this option would subject the Company to fewer risks associated with transportation difficulties and changes in regulatory requirements.

The most telling evidence countering the "need for nuclear" argument, however, is the aggressive effort of Gulf States in late 1978 to *sell* the River Bend I nuclear unit. Through its president, W. Donham Crawford, Gulf States attempted to market its River Bend I assets to overseas buyers. The evidence suggests that Mr. Crawford made unconditional offers to sell these assets. It was only after Gulf States *failed* to sell the River Bend I unit to prospective buyers that it decided to restart the construction process. The attempts to sell the unit belie Gulf States' assertions that it "needed" a nuclear unit instead of another alternative.

4. *Ability to Finance Alternative Generation.* Through a study prepared during the trial by Clyde McBride, one of its witnesses, Gulf States asserted that the cancellation of River Bend I might have made it impossible to finance

an alternative generating unit. Mr. McBride's testimony is unpersuasive. First, Mr. McBride's analysis was fraught with invalid assumptions. For instance, Mr. McBride assumed that River Bend I would be canceled in February, 1979, but he included all of the financing costs actually incurred for River Bend I in 1979 and 1980 in determining the effect of a cancellation on Gulf States' financial indicators. Obviously, if River Bend I had been canceled in February, 1979, the 1979 and 1980 financing costs for constructing the unit would not have been incurred. Further, Mr. McBride's analysis was a "hindsight" analysis rather than an analysis performed from the 1978 or 1979 perspective.

In addition, as Mr. Kollen testified, correction of the inaccurate assumptions in Mr. McBride's study suggests that Gulf States could have financed alternative generation if River Bend I had been canceled. Moreover, the computer analyses actually performed by Gulf States in the 1978 restart package indicated that the Company could finance alternative generation after a cancellation. Additionally, Mr. Kollen stated that his own analysis indicated that alternative generation could have been financed after the cancellation of River Bend I.

Finally, Gulf States had many options available to finance an alternative generating plant that were not embodied in Mr. McBride's analysis. These included delaying the actual cancellation of the unit and using financing techniques that are not subject to normal indenture requirements. Thus, no valid basis exists to conclude that Gulf States could not have financed an alternative.

5. *Attacks on Kennedy and Associates' Economic Studies.* Gulf States presented evidence at the trial that the economic analysis performed by Randy Falkenburg of Kennedy and Associates was invalid. Gulf States suggested that, with certain changes, the computer analyses performed by Mr. Falkenburg would favor the nuclear

option. It is true, as Gulf States asserts, that changes in the assumptions employed by Mr. Falkenburg change the results; selective variations in the assumptions make the lignite option look less attractive compared to the nuclear alternative. The Commission believes, however, that the assumptions used by Mr. Falkenburg are more realistic in light of all the evidence, and more reflective of the likely cost of nuclear and coal generation based on facts known in 1979, than the inputs used by Gulf States to selectively vary Mr. Falkenburg's assumptions.

This conclusion is supported by substantial evidence and buttressed by two outside factors. First, at the trial, several Gulf States' witnesses conceded that the nuclear option did not look substantially better than the coal/lignite alternative in the 1978-79 time period. This concession reflects a change of position by Gulf States and contradicts the assertion that a fair economic analysis would have clearly have favored the nuclear alternative. Second, the action of the nuclear industry disproves Gulf States' claims. No other companies commenced the construction of a nuclear unit after the Three Mile Island accident, indicating that economic analyses performed by other members of the industry showed that nuclear power would be an uneconomic alternative.

6. *Additional Evidence Concerning Gulf States' Representations.* The new evidence presented by Gulf States is not persuasive in light of contradictory evidence and the concessions of Company witnesses. In addition, evidence presented at the trial indicated that Gulf States repeatedly made representations to regulators and the public concerning the cost of River Bend I that were inconsistent with information known to the company at the time. The 1978 study prepared by Mr. Derr and presented to the Commission is a case in point. That study indicated that River Bend would cost $1.3 billion, although Gulf States knew the unit would likely cost $1.5 billion to $1.9 billion.

Gulf States made similar misrepresentations to the Commission in a subsequent rate case. W. Donham Crawford, the chief executive officer, vigorously defended the accuracy of an "official" cost estimate of about $1.7 billion, although updated cost estimates in the company's possession established that the unit would probably cost well over $2 billion. The Company's explanation for its actions is that only "official" estimates—no matter how outdated—should be used in economic cost analyses presented in a public forum. This explanation, of course, establishes that Gulf States' analyses were not designed to find the least cost alternative, but to further other corporate objectives, such as the need to keep cost estimates secret until "officially" disseminated. In addition, the evidence strongly suggests that Gulf States was attempting to justify the River Bend I decision after it failed in the effort to sell the unit. The knowing use of inaccurate cost estimates strongly indicates that Gulf States knew that cost studies employing accurate estimates would not support the nuclear alternative.

The new evidence presented at the trial provides further support for the imprudence disallowance imposed by the Commission. Therefore, the Commission will not disturb its imprudence ruling.

C. *DEREGULATED ASSET*

At the trial before the district court, Gulf States for the first time formally presented a so-called "inventory plan" for the resolution of the controversy associated with the imprudence disallowance. Essentially, Gulf States proposed a plan that would permit the creation of a deregulated asset, consisting of the portion of River Bend I excluded from the rate base as a result of the imprudence disallowance. An amount of capacity equivalent to the portion of the River Bend I investment excluded from the rate base would be associated with the deregulated asset. Apparently implicit in the "inventory" con-

cept of the company is a plan for the automatic return to rate base of the deregulated asset. Further, the company seeks a withdrawal of the commission's "imprudence" determination.

The Company's approach was not explained in detail on the record, but it embodied the 14 per cent rate of return on equity included in the injunctive rate increase granted by the district court and a return of and on the company's canceled investment in River Bend II. In addition, the proposal apparently assumes that the company would keep all the benefits of off-system sales from the deregulated capacity.

Gulf States asserted two purposes in offering the inventory plan. First, the company frankly conceded that ratepayers in its service territory cannot withstand the rates that would be necessary to pay for the full investment in River Bend I. One of its witnesses indicated that some exclusion plan is essential to maintain the economic competitiveness of the company's rates. Second, Gulf States asserted that the creation of a deregulated asset would ameliorate the financial impact of the Commission's decision by reducing the amount of a writeoff required on the books of the company.

The Commission's consultants studied the proposal of Gulf States and recommended that it be rejected. The consultants recommended, however, that the Commission adopt a rate base exclusion plan that would accomplish the legitimate objectives of Gulf States and adequately protect the interest of ratepayers. The Commission will adopt this plan with certain modifications and offer it to Gulf States as an alternative for resolving the issues that are currently under litigation. Gulf States may accept the plan described in this Order or, alternatively, continue its appeals of the Commission's basic decision with respect to imprudence.

The essential elements of the rate base exclusion plan are the following:

1. The Commission will retain the declaration that $1.4 billion of the Gulf States investment in River Bend I is imprudent. This declaration should not be rescinded because it provides the essential basis for the Commission's initial decision to exclude the investment from the rate base. The uncontradicted testimony of Mr. Kollen establishes that the declaration of imprudence will not preclude the achievement of the accounting objectives articulated by the company.

2. The plan will provide for the exclusion of $1.4 billion from the rate base, with no provision for the automatic return of the investment to the rate base. Thus, the plan will not be an "inventory" plan, although the Commission will retain the right to return the investment to the rate base.

3. The Commission will permit the creation of a deregulated asset consisting of the Louisiana jurisdictional portion of the $1.4 billion investment excluded from the rate base and the equivalent capacity of the River Bend I plant associated with that investment.

4. The Commission will guarantee the purchase of energy produced by the deregulated asset at the rate of 4.6 cents per kilowatt hour. Revenues to provide for this purchase (at an assumed annual capacity factor of 68 per cent) will be allocated from the rate increase granted pursuant to the injunction of the district court. The overall result to the ratepayer should be no greater rate increase than that ordered by the district court.

5. The Commission will retain the sole option to return the deregulated asset to the rate base at its fully depreciated cost at any time, but there will be no provision for an automatic return of the deregulated asset to the rate base.

6. All off-system, non-economy sales from the deregulated asset will be subject to Commission approval and all off-system economy sales will be subject to Commission review to ensure compliance with the purposes of the following provisions relating to off-system sales.

7. In the event of off-system, non-economy sales approved by the Commission, the company would allocate 60 per cent of the receipts above 4.6 cents per kilowatt hour to the regulated entity to reduce rates through the operation of the fuel clause.

8. In the event the Commission disapproves an off-system, non-economy sale and exercises the option to purchase the power and energy, the purchase will occur at the rate of 4.6 cents per kilowatt hour plus 40 per cent of the increment above 4.6 cents per kilowatt hour offered by a third party. The Commission will be required to exercise this option only in the event of a bona fide firm offer from a third party, and the Commission will retain the right to determine whether the offer is bona fide, subject to judicial review.

9. The per-kilowatt hour rate implicit in any off-system sale will be computed to reflect a reasonable allocation of demand charges, subject to the review and approval of the Commission. The overall kilowatt hour rate will be used to determine the allocable incremental benefits of the sale.

10. In the event of an outright sale of the deregulated asset approved by the Commission, the company will be required to allocate to the regulated entity 60 per cent of the incremental receipts of the sale above the present value of the non-fuel revenues the Company would otherwise expect to receive by selling energy at 4.6 cents per kilowatt hour at a 68 per cent capacity factor over the life of the plant. Thus, the company would share all receipts above the present value of the non-fuel component of the 4.6 cents (determined at the time of the

sale) computed at a 68 per cent capacity factor over the remaining life of River Bend I. The purchaser would assume responsibility for all operating costs and other costs associated with the purchased asset.

11. The company must agree that the Commission should have sufficient time to analyze the company's operations prior to the second step of the phase-in. Thus, the second increase in the court's injunctive rate plan will not occur until on or before September 30, 1989. The deferral associated with the first year of the district court's phase-in will continue on a monthly basis until the decision is rendered.

12. It will be presumed that capital additions are allocated pro-rata between the regulated and deregulated portions of River Bend I. This presumption could be overcome by proof that a capital addition is associated disproportionately with the regulated or deregulated asset.

13. The district court's phase-in plan will be adjusted to reflect certain accounting changes proposed by the Staff at the hearing and a change in the treatment of the rate of return on equity and the River Bend II investment outlined below.

14. The Commission will dismiss its appeal of the injunction ruling of the district court and the Company will dismiss its appeal of the Commission's decision on the merits. Further, the Company will dismiss its appeal of the Commission's decision to conduct a management audit of the Company's operations.

15. Should the company reach a settlement with regulators in another jurisdiction that is more favorable than this rate base exclusion plan in reducing River Bend I costs to ratepayers, the Commission shall be entitled to obtain the additional incremental benefits associated with that settlement.

D. *RATE OF RETURN ON EQUITY AND TREATMENT OF RIVER BEND II*

In Order No. U-17282-C, the Commission allowed Gulf States a rate of return on equity of 12 per cent. The district court, in its injunction, raised the allowed rate of return on equity to 14 per cent. The district court's injunction included no specific provision for River Bend II investment; the Commission had denied a return of and on the River Bend II investment. The Company's "inventory" plan provided for a return of and on the River Bend II investment. The Commission believes it is appropriate to reconsider these issues, modify its decisions, and provide a further explanation of its reasons for the decisions.

With respect to the rate of return, the Commission has reviewed the issue and concludes that a rate of return on equity of 12.75 per cent is reasonable. The Commission will adopt a rate of return on equity of 12.75 per cent; this rate of return will be embodied in the rate base exclusion plan and must be accepted as part of the plan by the company.

A 12.75 per cent rate of return on equity is reasonable for two reasons. First, the Commission used a hypothetical capital structure in computing the overall rate of return allowed the company. The hypothetical capital structure contained an equity ratio of 40 per cent, although the Company's actual equity ratio was about 34 per cent. Thus, the 12 per cent return on equity allowed by the Commission produced a return on the actual prudent equity investment in excess of 14 per cent. This point was not adequately explained in the Commission's initial decision and may not have been fully understood by the district court.

Second, the adoption of the rate base exclusion plan should substantially improve the financial status of the company. By allowing the creation of a deregulated

asset, the Commission permits the company to avoid most of the writeoff associated with the imprudence finding. This action will significantly improve the ability of Gulf States to attract capital, making it possible to attract capital on reasonable terms with a lower rate of return on equity than that deemed appropriate by the district court. The Commission believes that a reasonable reduction of the rate of return on equity is 1.25 per cent, resulting in an authorized rate of return on equity of 12.75 per cent. This modification balances the interest of investors and ratepayers and provides the company with an increment above the rates of return recently allowed in other cases by the Commission, to help permit it to recover its financial strength.

With respect to the treatment of River Bend II, the Commission rejects the recommendation of the company and the initial recommendation of the consultants to allow a return of and on the investment in River Bend II. First, this treatment is inconsistent with the regulatory treatment of canceled plans that is used in the vast majority of jurisdictions in the United States, including the treatment normally employed by the Federal Energy Regulatory Commission. Second, this treatment would provide the company with an unjustified return of and on substantial amounts added to the investment in River Bend II after the unit should have been canceled. Third, this approach is inconsistent with the "used and useful" principle. The Commission will permit Gulf States to recover its canceled investment in River Bend II over a period of ten years, but will deny rate base treatment of the unamortized investment in the unit. This action adequately balances the interest of investors and ratepayers.

The net effect of the adjustment to the rate of return and the modification of the treatment of River Bend II is a rate reduction of $3.6 million.

RATE ALLOCATION

The Commission determined that the initial rate increase in the phase-in plan should be allocated among customer classes on a kilowatt hour basis. This allocation was not specifically recommended by any of the witnesses who testified in the proceedings before the Commission. However, the Commission believes that the rate allocation is justified and supported by substantial evidence.

According to the Gulf States witnesses, a major reason for the construction of River Bend I was to provide fuel diversity. Further, a justification for continuing the construction of the unit after the company reduced its load growth projections was to replace gas and oil capacity. In the early 1980s the Company believed that the price of oil and gas would increase substantially over time and the large upfront investment in a nuclear unit would be offset, at least in part, by relatively low nuclear fuel costs.

Since River Bend I was constructed at least in part to replace generation sources that were dependent on high-cost fuel and to provide a generation source using low-cost fuel, it is appropriate to consider allocating the capital costs of the unit on an energy basis rather than a demand basis. In effect, higher capital costs were incurred in order to achieve lower fuel costs. Had a coal or lignite unit been constructed, for example, the capital costs of the unit would have been lower and fewer costs would have been allocated on a demand basis. The fuel costs would have been higher and all of these costs would have been allocated on a kilowatt hour basis, through the fuel clause.

The Commission's allocation decision allocates only a portion of the first phase of the River Bend I phase-in on an energy basis. The $92 million increase represents only about one-fourth of the total necessary rate increase

for River Bend I under the deferral plan. In effect, a portion of the necessary first-year increase for River Bend I was allocated according to existing base rate allocations, since a rate reduction would have been appropriate for the Company's non-River Bend I operations, and these rates simply remained in place, reflecting the pre-existing allocation. Moreover, a substantial disparity still exists between industrial and residential rates, although there is no difference in the electricity consumed by the different customer classes.

Further, although the kilowatt hour allocation departs from the so-called "cost of service" allocation methods in the record, none of the studies allocated capacity costs in whole or in part on an energy basis. Had such an allocation been performed, it would have supported the partial energy allocation of River Bend I enacted in this case. As we have indicated, an energy allocation method would properly reflect the purposes associated with River Bend I.

For these reasons, the Commission deems it appropriate to reaffirm its kilowatt hour rate allocation for the first step of the phase-in. However, the Commission recognizes the necessity of maintaining the industrial load on the Gulf States system. The allocation of the initial rate increase should in no way be construed to signal an intention of the Commission to adopt an energy allocation of future increases associated with River Bend. The Commission will consider the evidence, the competitiveness of Gulf States' industrial rates, and all other relevant factors in making a determination of the appropriate allocation in a future proceeding.

E. *DECOMMISSIONING TRUST FUND*

It has been brought to the Commission's attention that the final regulations concerning the income tax treatment of nuclear decommissioning funds under Sections 88 and 468A of the Internal Revenue Code require, among other

things, that the funding period and the annual amount included in rates be specified in the Commission's rate order. These items were not specifically set out in Order No. U-17282-C. Therefore, the Commission hereby determines that the following facts underlie that Order:

1. The annual depreciation rate for River Bend I, to reflect the Commission's decision that the unit has a 40-year life, is 2.5 percent.

2. The decommissioning cost is \$201,406,000 in 1985 dollars as specified on Schedule L, page 31 of 86 of the Company's rate filing package.

3. The \$201,406,000 escalated at 4 percent annually until 2025 is \$966,950,206.

4. The Louisiana retail portion of the \$966,950,206 is \$316,585,395.

5. The costs deferred under the Accounting Order issued by the Commission for River Bend I do not include the deferral of decommissioning costs; rather, the decommissioning cost will be funded over a 38-year period beginning in 1988.

6. The annual annuity for Gulf States' 70 percent ownership of River Bend I, computed at an interest rate of 9 percent, is \$2,394,749.

7. The Louisiana retail portion of that annual annuity is \$1,120,079

8. The calculation underlying the Commission's Order in Docket No. U-17282 includes \$1,120,079 for decommissioning expense.

9. The portion of the \$1,120,079 annual annuity which qualifies for tax deduction is 38/40ths, or \$1,064,075. The attached Schedule I reflects the build-up of the qualified portion of the fund.

10. The portion of the \$1,120,079 annual annuity which does not qualify for tax deduction is

2/40ths, or $56,004. The attached Schedule II reflects the build-up of the non-qualified portion of the fund.

F. *CONCLUSION*

For the foregoing reasons, IT IS HEREBY ORDERED that:

1. Gulf States Utilities Co. inform the Commission within ten days as to whether it accepts or rejects the rate base exclusion plan outlined in this Order.

2. In the event that Gulf States Utilities Co. rejects the rate base exclusion plan, the Commission hereby reaffirms the findings and conclusions embodied in Order No. U-17282-C, as explained in the majority opinion issued in connection with that Order and amplified in this decision.

3. In the event that Gulf States Utilities Co. accepts the rate base exclusion plan outlined in this Order, the Commission hereby orders that Gulf States Co. reduce its rates in the annual amount of $3.6 million, effective three days after its notification to the Commission of its acceptance of the plan. Further, the Commission approves the terms of the rate base exclusion plan outlined in this Order and orders that the Company take the necessary steps to implement the plan. In addition, the Commission approves the phase-in plan, as approved by the district court and modified by the Commission, associated with the phase-in of the prudent investment in River Bend I and the rate base exclusion plan. The Commission approves the deferral of the costs associated with the phase-in, as reflected on the attached Schedule III. The Period 1a rate increase reflects $28 million for the assumed annual cost of the kilowatt hours to be purchased from the deregulated asset. Thus, the $28 million should be removed from base rates. These revenues will be collected through the fuel charge at a rate of 1.6 cents per

kilowatt hour to the extent energy is actually sold to the Louisiana retail operation from the deregulated asset. The base rate reductions shall be implemented using the same allocation method as when the $92 million increase was imposed.

4. The Commission orders the implementation of the other decisions contained in this Order.

/s/ Don L. Owen
DON OWEN
Chairman

/s/ John F. Schwegmann, Dissenting
JOHN F. SCHWEGMANN
Commissioner

/s/ Thomas E. Powell
THOMAS E. POWELL
Commissioner

/s/ Louis Lambert
LOUIS LAMBERT
Commissioner

/s/ Jeanette Ackel
JEANETTE ACKEL
Commissioner

/s/ Marshall B. Brinkley
MARSHALL B. BRINKLEY
Secretary

November 15, 1988

SCHEDULE I

PROPOSED SCHEDULE OF RULING AMOUNTS
QUALIFIED PORTION OF
NUCLEAR DECOMMISSIONING FUND

GULF STATES UTILITIES COMPANY
RIVER BEND NUCLEAR DECOMMISSIONING FUND
FOR 70% CO-OWNERSHIP

Year	Beginning Balance	Annual Earnings	Cumulative Earnings	Annual Contributions	Cumulative Contributions	Ending Balance
1988	$	$	$	$1064075	$ 1064075	$ 1064075
1989	1064075	95766	95766	1065075	2128150	2223916
1990	2223916	200153	295919	1064075	3192225	3488144
1991	3488144	313933	609852	1064075	4256300	4866152
1992	4866152	437953	1047805	1064075	5320375	6368180
1993	6368180	573137	1620942	1064075	6384450	8005392
1994	8005392	720485	2341427	1064075	7448525	9789952
1995	9789952	881095	3222522	1064075	8512600	11735122
1996	11735122	1056161	4278683	1064075	9576675	13855358
1997	13855358	1246983	5525666	1064075	10640750	16166416
1998	16166416	1454977	6980643	1064075	11704825	18685468
1999	18685468	1681692	8662335	1064075	12768900	21431235
2000	21431235	1928811	10591146	1064075	13832975	24424121
2001	24424121		12789317	1064075	14897050	27686367
2002	27686367	2491773	15281090	1064075	15961125	31242215
2003	31242215	2811800	18092890	1064075	17025200	35118090
2004	35118090	3160628	21253518	1064075	18089275	39342793
2005	39342793	3540851	24794369	1064075	19153350	43947719

SCHEDULE I—Continued

Year	Beginning Balance	Annual Earnings	Cumulative Earnings	Annual Contributions	Cumulative Contributions	Ending Balance
2006	43947719	3955295	28749664	1064075	20217425	48967089
2007	48967089	4407038	33156702	1064075	21281500	54438202
2008	54438202	4899438	38056140	1064075	22345575	60401715
2009	60401715	5436154	43492294	1064075	23409650	66901944
2010	66901944	6021175	49513469	1064075	24473725	73987194
2011	73987194	6658848	56172317	1064075	25537800	81710117
2012	81710117	7353910	63526227	1064075	26601875	90128102
2013	90128102	8111530	71637757	1064075	27665950	99303707
2014	99303707	8937333	80575090	1064075	28730025	109305115
2015	109305115	9837460	90412550	1064075	29794100	120206650
2016	120206650	10818599	101231149	1064075	30858175	132089324
2017	132089324	11888039	113119188	1064075	31922250	145041438
2018	145041438	13053730	126172918	1064075	32986325	159159243
2019	159159243	14324331	140497249	1064075	34050400	174547649
2020	174547649	15709289	156206538	1064075	35114475	191321013
2021	191321013	17218891	173425429	1064075	36178550	209603979
2022	209603979	18864358	192289787	1064075	37242625	229532412
2023	229532412	20657917	212947704	1064075	38306700	251254404
2024	251254404	22612897	235560601	1064075	39370775	274931376
2025	$274931376	$24760674	$260321275	$1064075	$40434850	$300756125

The Annual Earnings Rate Is 9.00 Percent

SCHEDULE II

PROPOSED SCHEDULE OF RULING AMOUNTS
NON-QUALIFIED PORTION OF
NUCLEAR DECOMMISSIONING FUND

GULF STATES UTILITIES COMPANY
RIVER BEND NUCLEAR DECOMMISSIONING FUND
FOR 70% CO-OWNERSHIP

Year	Beginning Balance	Annual Earnings	Cumulative Earnings	Annual Contributions	Cumulative Contributions	Ending Balance
1988	$	$	$	$56004	$ 56004	$ 56004
1989	56004	5040	5040	56004	112008	117048
1990	117048	10534	15574	56004	168012	183586
1991	183586	16523	32097	56004	224016	256113
1992	256113	23050	55147	56004	280020	335167
1993	335167	30165	85312	56004	336024	421336
1994	421336	37920	123232	56004	392028	515260
1995	515260	46374	169606	56004	448032	617638
1996	617638	55587	225193	56004	504036	729229
1997	729229	65631	290824	56004	560040	850864
1998	850864	76578	367402	56004	616044	983446
1999	983446	88510	455912	56004	672048	1127960
2000	1127960	101516	557428	56004	728052	1285480
2001	1285480	115693	673121	56004	784056	1457177
2002	1457177	131146	804267	56004	840060	1644327
2003	1644327	147990	952257	56004	896064	1848321
2004	1848321	166349	1118606	56004	952068	2070674
2005	2070674	186360	1304966	56004	1008072	2313038

SCHEDULE II—Continued

Year	Beginning Balance	Annual Earnings	Cumulative Earnings	Annual Contributions	Cumulative Contributions	Ending Balance
2006	2313038	208174	1513140	56004	1064076	2577216
2007	2577216	231949	1745089	56004	1120080	2865169
2008	2865169	257865	2002954	56004	1176084	3179038
2009	3179038	286114	2289068	56004	1232088	3521156
2010	3521156	316904	2605972	56004	1288092	3894064
2011	3894064	350465	2956437	56004	1344096	4300533
2012	4300533	387048	3343485	56004	1400100	4743585
2013	4743585	426923	3770408	56004	1456104	5226512
2014	5226512	470386	4240794	56004	1512108	5752902
2015	5752902	517761	4758555	56004	1568112	6326667
2016	6326667	569400	5327955	56004	1624116	6952071
2017	6952071	625687	5953642	56004	1680120	7633762
2018	7633762	687038	6640680	56004	1736124	8376804
2019	8376804	753913	7394593	56004	1792128	9186721
2020	9186721	826805	8221398	56004	1848132	10069530
2021	10069530	906257	9127655	56004	1904136	11031791
2022	11031791	992862	10120517	56004	1960140	12080657
2023	12080657	1087259	11207776	56004	2016144	13223920
2024	13223920	1190152	12397928	56004	2072148	14470076
2025	$14470076	$1303190	$13701118	$56004	$2128152	$15829270

The Annual Earnings Rate Is 9.00 Percent

SCHEDULE III

Period	Annual Increase	Deferral
Period 1 (2/19/88-11/15/88)	$92 million	$308.3 million
Period 1a (11/16/88-9/30/89)	($3.6 million)	
Period 2 (10/1/89-9/30/90)	$50 million	$128.7 million
Period 3 (10/1/90-9/30/91)	$50 million	$60.5 million
Period 4 (10/1/91-9/30/92)	$50 million	$0 deferred $6.3 million recovered
Period 5 (10/1/92-9/30/93)	$42.1 million	$0 deferred $62 million recovered
Period 6 (10/1/93-9/30/94)	$0	$0 deferred $76.7 million recovered
Period 7 (10/1/94-9/30/95)	$0	$0 deferred $92.6 million recovered
Period 8 (10/1/95-9/30/96)	$0	$0 deferred $97.2 million recovered
Period 9 (10/1/96-2/18/98) (completes 10 years)	$0	$0 deferred $162.6 million recovered

APPENDIX F

Majority Opinion in Connection with Order No. U-17282-C of the Louisiana Public Service Commission (January 26, 1988)

BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION

MAJORITY OPINION
(IN CONNECTION WITH ORDER NO. U-17282-C)

GULF STATES UTILITIES COMPANY, EX PARTE
IN RE: APPLICATION FOR APPROVAL OF AN
INCREASE IN RATES FOR RETAIL
ELECTRIC SERVICE

I. INTRODUCTION

This Docket involves the application of Gulf States Utilities Company ("Gulf States" or "the Company") for an increase in its intrastate rates and charges for electric service in the State of Louisiana. As part of its investigation into the appropriateness of a rate increase, the Commission ordered an investigation into the prudence of the planning, construction and costs associated with the River Bend 1 nuclear generating unit.

Gulf States is an electric public utility organized under the laws of Texas and doing business in both Louisiana and Texas. It provides electric service to approximately 275,000 residential, commercial and industrial customers in twenty of the sixty-four parishes of the state. Gulf States owns 70% of the River Bend 1 nuclear generating facility in St. Francisville, Louisiana. The other 30% of the facility is owned by Cajun Electric Power Cooperative, Inc. River Bend 1 went into commercial operation on June 16, 1986.

Interventions in this Docket were filed by the Attorney General of the State of Louisiana, the Gulf States Energy Users Group (GSEUG), the Louisiana Food Store Group (LFSG), Dow Chemical Company and the United States Department of Energy (DOE). The Intervenors filed testimony and participated in the various rate-making aspects of this Docket.

The rate filing of the Company in this Docket was made on July 25, 1986. Gulf States' primary purpose in filing its application was to seek the inclusion into its rate base of the River Bend 1 nuclear unit, which it also sought to have declared in commercial operation. The Company had previously filed an application for a retail rate increase to include River Bend 1 costs (Docket U-16950, filed in September, 1985). After preliminary public hearing and arguments of counsel in the previous docket, the Commission bifurcated the case into two separate rate filings, one for Plant-in-Service and the other for River Bend 1, and ordered the dismissal of that portion of the filing applicable to River Bend 1 as premature, based on the lack of evidence that the unit was in commercial operation. After the filing of the instant case, on August 12, 1986, Gulf States voluntarily withdrew that portion of the previous filing dealing with Plant-in-Service which was still before the Commission.

As a result of the issues which arose in Docket U-16950 regarding the commercial operation of River Bend 1, on August 26, 1986, Gulf States filed a Motion for a Declaratory Order requesting a determination by the Commission of the effective date of commercial operation (Docket U-17242). On December 2, 1986 the Commission issued an order setting the effective date of commercial operation of River Bend 1 as June 16, 1986, the date requested by the Company.

Gulf States' application for rate relief in this Docket originally sought a base rate increase of $202 million

from its Louisiana retail ratepayers. This requested increase was based on a proposed overall rate of return of 12.6%. Because of the commercial operation status of River Bend 1 in August 1986 (although that status had not yet been officially recognized by the Commission), and because of the Company's financial condition, as an adjunct to its rate case, Gulf States filed on September 8, 1986 a request for emergency interim rate relief of $100 million. The Commission Staff reviewed the application for emergency relief, and witnesses for the Company, Staff and Intervenors filed testimony and were cross-examined at public hearings. After hearings were concluded, on December 2, 1986, the Commission denied the Company's request for emergency interim rate relief. On that same date, however, the Commission granted Gulf States an accounting order allowing all River Bend 1 costs to be deferred and capitalized for future consideration of recovery by the Commission.

In January 1987, Gulf States appealed the denial of its interim rate request to the 19th Judicial District Court (Docket No. 309,597, "G"), which resulted in a remand by the Court to the Commission for reconsideration of the interim application. On February 24, 1987, the Commission reconsidered the emergency rate application and granted Gulf States emergency rate relief, permitting the Company to increase its base rates by $57 million on an annualized basis for total Louisiana retail revenues, with no effect on the operation of the fuel adjustment clause. This rate increase was allotted to the customer classes in the same proportion that each class contributed to the non-fuel revenues of Gulf States in the test year. The emergency increase in rates became effective on March 5, 1987, and expired upon the effective date of the Order in this Docket. After the interim rate increase became effective, in March 1987, the Company made a revised and supplemental filing, amending the requested rate increase to $194.3 million.

After the conclusion of that portion of the proceedings concerning the interim rate increase application, public hearings were conducted concerning non-River Bend issues, River Bend 2 and River Bend 1 revenue requirements, the prudence of the Company's decisions with respect to the River Bend 1 nuclear project, and rate design. These hearings were conducted before the Commission and the Honorable Roy F. Edwards, Hearing Examiner, and witnesses of the Company, Staff and Intervenors were cross-examined. These hearings were conducted on March 30 and 31, April 1, 3, 21, 22, 23 and 24, May 13, 14, 15, 26, 28 and 29, June 15, 16, 17, 18, 19, 22, 24 and 25, July 7, 8, 9, 10, 13 and 14, August 5, 6 and 7, September 21 and October 6, 1987.

On November 10, 1987 the Commission, the Attorney General, the Gulf States Energy Users Group, the Louisiana Food Store Group and Special Counsel to the Commission presented oral arguments to the Commission. On November 19, 1987, the Company filed with the Commission a Motion To Defer Final Consideration of the matter in order to allow the parties and the Commission to further explore possible rate base alternatives regarding River Bend 1.

At its November 24, 1987 regular meeting, the Commission voted to defer final consideration of Gulf States' rate increase application until December 15, 1987 and instructed Special Counsel and the parties to hold technical conferences in order to explore what types of accounting practices might be permissible if there were a disallowance for imprudence with the possibility that the Commission might review the disallowance if future economics suggested that the disallowed portion might be brought back into rate base. A technical conference was held on December 3, 1987, at which the Company made a presentation of two alternative rate base exclusion plans, one of which would convert the $1.4 billion permanent disallowance proposal of Kennedy & Associates to

a $1.4 billion rate base (not necessarily permanent) exclusion, and the second of which would allow the Company to "break-even" and pay preferred dividends but not common dividends. These alternatives are further discussed in Part V of this Opinion.

II. COST OF CAPITAL/RATE OF RETURN

The Company has proposed an imputed capital structure consisting of the following components and costs:

Component	Percent Capitalization	Cost	Weighted Cost
Common Equity	40%	15.25%	6.10%
Preferred/ Preference Equity	12%	11.05%	1.33%
Long Term Debt	48%	10.78%	5.17%
Total	100%		12.60%

The Staff has adopted the capital structure proposed by the Company since it is consistent with the capital structures of utility companies having investment grade first mortgage bonds, which Gulf States currently does not. Gulf States' common equity ratio at test year end was approximately 35% The Company has proposed, through witness Charles Olson, a return on common equity of 15.25%. Witness Olson utilized a discounted cash flow (DCF) analysis to determine an initial 13.0 to 13.5% return on equity requirement. He utilized a group of comparative companies in order to derive this initial return. He then, however, arbitrarily added another full percentage point to his initial return as well as other adjustments to derive his recommended return on equity of 15.0% to 15.5%. The Company then utilized the midpoint of Mr. Olson's return, 15.25%, resulting in a proposed overall rate of return of 12.60% based upon their imputed capital structure.

Staff witness Jay B. Kennedy also utilized a DCF methodology which determined a rate of return for a group of comparative companies in a manner similar to that of Mr. Olson's initial return. Dr. Kennedy also utilized a risk premium approach as a secondary method for testing the validity of his DCF results. He concluded that a 14.0% return on equity would be appropriate. This rate of return on common equity would result in an overall rate of return of 12.10%.

The Federal Energy Regulatory Commission (FERC) presently uses a benchmark rate of return on equity of 12.27%. This benchmark rate of return is developed by the FERC on a quarterly basis. The average rate of return for the past four quarters is 11.7%

The rates of return on equity granted by this Commission to other utilities in recent years are as follows:

Company	Date of Order	Return on Equity	Overall Rate of Return
LP&L	1/30/87	12.0%	10.75%
Trans LA	2/27/87	12.0%	10.77%
Dixie	8/26/87	11.0%	N/A
AP&L	10/10/86	12.5%	N/A
Evangeline	10/10/86	12.0%	N/A
CLECO	5/1/86	13.5%	11.07%

Consistent with the FERC benchmark rate of return on equity and recent Commission orders, a return on equity of 12.0%, resulting in an overall rate of return of 11.3%, is appropriate for Gulf States and is so ordered.

III. NON-RIVER BEND

A. *Rate Base*

Gulf States has filed a rate base, excluding River Bend 1 and 2, of $831,755,000 consisting of the following components:

Component	Amount ($000)
Electric Plant In-Service	$1,405,546
Less: Accumulated Depreciation	(457,080)
Net Plant In-Service	$ 948,466
Plant Held for Future Use	65,703
Unamortized Plant Losses (Net of Gains)	3,401
Working Capital Requirements	8,532
Less: Accumulated Deferred Income Taxes	(172,339)
Accumulated Pre-1971 Deferred ITC	(2,234)
Customer Deposits	(9,138)
Deferred Fuel Over/Under Recovery	(1,151)
Other	(9,485)
Total Non-River Bend Average Year Rate Base	$ 831,755

The Staff has recommended three adjustments (Exhibits L-96, L-95 and L-103) to modify the Company's filing as follows:

Component	Amount ($000)
Plant Held for Future Use	$ 383
Unamortized Plant Losses (Net of Gains)	(740)
Less: Accumulated Deferred Income Taxes	(365)
Net Adjustments to GSU Rate Base	$ 8

The first adjustment reflects the first year average rate base effect of a ten year straight line amortization of insurance proceeds resulting from the 1983 Neches No. 7 boiler explosion. The amortization is based upon the net amount of the gain, calculated as the difference between the proceeds and the net book value of Neches No. 7, plus cleanup costs incurred prior to the end of the test year. The net gain is $16.4 million on a total Company basis and $7.7 million on a Louisiana retail basis. The annual amortization over ten years is $766,-000 on a Louisiana retail basis with a first year average rate base effect of $383,000. The full amount of the gain

was reflected by the Company as a rate base reduction; however, no provision was offered by Gulf States to amortize this benefit to the ratepayers. The rate base adjustment offered by the Staff should result in an increase in rate base, as the net unamortized gain is amortized to the ratepayers.

The Commission finds this adjustment to Plant Held for Future Use appropriate and consistent with their prior treatment of net property gains and losses.

The second adjustment relates to the reduction of rate base for the unamortized gain on the sale of nuclear fuel associated with the cancelled Blue Hills nuclear project. The Commission ordered Gulf States in Docket No. U-14495 to reduce rate base for the unamortized amount of this gain inasmuch as Gulf States was allowed to increase rate base for the unamortized amount of the Blue Hills nuclear project cancellation loss. The Company did not dispute this adjustment. The Commission finds this second rate base adjustment to Unamortized Plant Losses (Net of Gains) appropriate and consistent with our decision in Docket No. U-14495.

The third adjustment relates to the accumulated deferred income taxes offset to rate base. Gulf States calculated the test year addition to average accumulated deferred taxes utilizing a 37% federal income tax rate. This blended rate was computed by Gulf States as an average of the 1987 average blended rate of 40% and the 1988 rate of 34%. The Staff disagreed with the utilization of the 37% rate since the 34% became statutorily effective on July 1, 1987.

The Commission agrees that the use of a 34% federal tax rate is appropriate and therefore finds the Staff adjustment to rate base of $365,000 is also appropriate.

The combination of these three adjustments to the Company's test year average rate base results in an allowed rate base of $831,763,000.

B. *Operating Income*

Gulf States' filing reflects test year operating income before increase of $90,564,000 which excludes the effect of River Bend 1 and River Bend 2 but includes the effect of certain purchased power demand charges not included in the fuel adjustment clause (including the Cajun buybacks). The Company's test year operating income consists of the following components:

Component	Amount ($000)
Total Operating Revenues	$612,416
Operating Expenses:	
Fuel	171,046
Purchased Power	148,033
Other O & M	59,035
Administrative and General	42,247
Interest on Customer Deposits	537
Payroll and Benefits Proforma	9,641
Depreciation	37,774
Amortization of Losses (Gains)	(313)
Taxes Other Than Income	37,111
Total Operating Expenses before Income Taxes	$505,110
Operating Income before Income Taxes	$107,306
Income Taxes (La. and Federal):	
Current	(19,829)
Deferred	45,455
ITC (net)	(8,884)
Total Income Tax Expense	$ 16,742
Total Operating Income	$ 90,564

The Commission Staff has recommended five adjustments to the Company's filed test year operating income as follows:

Component	Amount ($000)	Nature of Adjustment
Administrative and General	$ 126	Storm Damage
Payroll and Benefits Proforma	3,258	Pension
Amortization of Losses (Gains)	766	Neches #7
Taxes Other Than Income	234	Willow Glen #3 Nelson #4
Income Taxes	(2,465)	Other Adj. and Rate Change
Net Adjustments to GSU Operating Income	$1,919	

The first adjustment reduces proformed operating expenses to reflect an annual accrual to rebuild the Company's storm loss reserve based upon five years of history. The Company had requested an annual accrual based upon four years of history. The Commission finds the annual accrual and the resulting adjustment to the Company's amounts proposed by the Staff to be appropriate since it reflects an annual average over a longer historical time period.

The second adjustment reduces proformed pension expense to reflect a five year amortization of special charges incurred by Gulf States as a result of an Early Retirement Program. Gulf States had requested recovery of this special change over one year along with a reduction in rate base. The amount of the special charge reflected the present value of future incremental pension benefit payments. The Staff initially proposed a five year amortization of the present value amount along with a reduction in rate base. The Staff subsequently recommended a five year levelized amortization utilizing a 9% annual interest rate with no rate base reduction to more closely reflect the funding requirements associated with this item. The adjustment included in the table above for this item directly reflects the full amount of the reduction in operating income from the Staff's initial position to their subsequent position including the tax and return effects.

We agree with the Staff that the special charge for the Early Retirement Program is not indicative of future expense levels and should therefore not be recovered over a one year period as if it were an ongoing expense. We find that the Staff's recommendation for a five year levelized amortization with no rate base treatment provides the Company full recovery of its funding requirements with interest for this Early Retirement Program on a levelized basis.

The third adjustment reflects a ten year amortization of the net gain resulting from insurance proceeds in excess of net book value arising from the Neches #7 boiler explosion in 1983. This was discussed previously in the Rate Base section of this Opinion.

The amortization of the net gain to the ratepayers is appropriate inasmuch as it is the ratepayers who paid for the Neches #7 unit as well as for its operating expenses, including insurance, during the years in which it was operable.

The fourth adjustment reduces Gulf States' request for a full year of property tax expense to one half of a year on the Willow Glen #3 and Nelson #4 units as a result of losing their property tax exemptions on January 1, 1988.

The fifth adjustment to Operating Income results from the net change in federal and state income tax expense. The net change in tax expense resulted from the Staff's recommended use of a 34% federal tax rate as well as the preceding adjustments which we have adopted. We have previously discussed in the Rate Base section of this Opinion the appropriateness of utilizing a 34% federal tax rate rather than the blended 37% rate requested by the Company.

As a result of the preceding adjustments, we find that Gulf States' test year Operating Income is $92,483,000 or $1,919,000 higher than the level reflected in its filing.

C. Revenue Requirements

We have found the Company's necessary return on rate base to be 11.30% reflecting a return on common equity of 12.00% and a capital structure of 40% common equity, 12% preferred equity and 48% debt. We have found the Company's Non-River Bend rate base to be $831,763,000. We have found the Company's operating income including the effects of certain purchased power demand charges not recovered through the fuel adjustment clause (including the Cajun buybacks) to be $92,483,000.

Consequently, the Company's Non-River Bend revenue deficiency is computed as follows:

Component	Amount ($000)
Rate Base	$831,763
Allowed Return	11.30%
Allowed Operating Income	$ 93,989
Earned Operating Income	92,483
Operating Income Deficiency	1,506
Gross Revenue Conversion Factor	1.6021
Revenue Req. Deficiency before Adders	2,413
Adder for Revenue Related Taxes and Uncollectible Accounts @ 2.45%	59
Total Non-River Bend Revenue Deficiency	$ 2,472

IV. RIVER BEND 2

The River Bend 2 nuclear project was cancelled by Gulf States in 1984. At that time, $50.371 million had been invested in River Bend 2, with subsequent expenditures of $1.8 million for additional cancellation costs and an adjustment for excavation and backfill of $10.042 million, for a total unamortized investment balance of $62.114 million for the Louisiana retail jurisdiction.

Gulf States proposed that the unamortized investment balance of River Bend 2 costs be amortized over a ten year period. The Commission Staff opined that if allowed to be recovered, the River Bend 2 costs should be amortized over a forty year period, forty years being the estimated useful life of a completed and operating nuclear plant such as River Bend 1.

We have reviewed the law applicable to the recovery of cancelled plant investment costs. The "used and useful" principle of law assures that ratepayers, whose property might otherwise be "taken" by regulatory authorities, will not be saddled with that which provides the ratepayers with no discernible benefit. *Jersey Central Power & Light Company v. Federal Energy Regulatory Commission*, 810 F.2d 1168, 1190 (D.C. Cir. 1987). River Bend 2 provides no discernible benefit to the Louisiana ratepayers; it is nothing more than a hole in the ground.

Gulf States is enittled to rates "sufficient to yield a reasonable rate of return upon the value of property used, at the time it is being used, to render the services. But it is not entitled to have included any property not used and useful for that purpose." *Denver Union Stock Yard Co. v. United States*, 304 U.S. 470, 585 S. Ct. 990, 82 L.Ed. 1469 (1938); *Bluefield Waterworks & Improvement Co. v. Public Serv. Commission*, 262 U.S. 679, 690, 67 L.Ed. 1176, 1181, 43 S. Ct. 675.

The River Bend 2 cancelled investment costs are not used or useful in providing electric service to Louisiana ratepayers, and should therefore not be recovered from Louisiana ratepayers.

V. RIVER BEND 1

River Bend 1 is a nuclear generating facility located near a bend in the Mississippi River, just south of St. Francisville, Louisiana. River Bend is a boiling water reactor (BWR) with a nominal rating of 940 mW. The

unit is owned jointly by Gulf States Utilities (70%, or 658mW) and by Cajun Electric Cooperative (30%, or 282mW).

Gulf States began construction of River Bend 1 in the early 1970's. In response to dramatically reduced load growth projections and financial deterioration, the unit's site construction was suspended in early 1977. In late summer 1978, studies were performed by Gulf States to determine whether site construction at River Bend 1 should be resumed. In addition, outside participation in the unit was pursued as well as the sale of unit components and fuel. Surrounding area utilities were contacted to determine their interests in participation. Contacts were also made with highly placed officials in foreign countries including South Korea and Iran.

Informal indications of participation interests were obtained from Cajun Electric Cooperative and Sam Rayburn, G & T, Inc. Foreign contacts indicated no interest in purchasing the unit, components or fuel.

Rebids for the project were obtained from four architect engineering firms in the fall of 1978, including Stone and Webster (the original contractor), Brown and Root, Ebasco and Bechtel. These rebids, encompassing scope, cost and schedule duration, were evaluated by the Company in conjunction with Management Analysis Company, resulting in the reselection and continued utilization of Stone and Webster as the general contractor.

In February 1979, the Company's Board of Directors voted to authorize construction spending for 1979 which included reactivation of site construction at River Bend 1. In addition, Stone and Webster began the development of a definitive estimate of the project's cost and schedule duration.

In March 1979, the accident at the Three Mile Island nuclear unit occurred, resulting ultimately in substantially increased costs for mandated design and operating

requirement changes. Site construction forces were mobilized at River Bend 1 in the summer of 1979. First structural concrete was poured in September 1979. River Bend 1 was the only nuclear unit to commence construction in the United States after the Three Mile Island accident.

Participation in the unit by Cajun did not actually occur until 1981. Participation in the unit by Sam Rayburn or other prospective parties never did occur. As a result, Gulf States' ownership of River Bend 1 increased by an additional 10% (94mW), not contemplated at the time of restart. Major construction was completed by late 1985. By May 1986, the unit completed full-power ascension testing. River Bend 1 was declared in commercial operation on June 16, 1986.

For the first five years of the unit's operation, Gulf States is obligated, as a condition of Cajun's participation, to buy back decreasing amounts of Cajun's 30% share of the unit's output. This commitment expires in 1991, at which time Cajun will be fully responsible for all costs related to its 30% share.

STANDARD OF PRUDENCE

Necessity of the Prudence Standard

Utility rates may only reflect prudently incurred costs of providing service. Imprudent, unlawful or unreasonably incurred costs are disqualified from rate recognition. In other words, prudence qualifies costs which are allowed to be reflected in rates. *Acker v. U.S.*, 298 U.S. 426, 430 (1936), *El Paso Natural Gas Co. v. Federal Power Comm.*, 281 F.2d 567, 573 (5th Cir. 1960) cert. denied 366 U.S. 912 (1960).

The prudence standard concerns the decision making process, not just a specific assumption, forecast or study which might have influenced decisions. Decisions must be shown to be the result of a logical process, guided by

a reasonable set of considerations, as known at the time. Thus, the mere fact that a reasonable assumption was in place at some time in the past does not imply that there is no limit to the decisions which could flow from that assumption. In making decisions which ultimately effect customer rates, management must exercise a standard of care and professionalism consistent with the significance of the decision as perceived at the time. *Municipal Light Boards v. Boston Edison Co.*, Opinion No. 729, 53 FPC 1545 (1975) off'd sub nom.; *Towns of Norwood, et al v. F.P.C.*, 546 F.2d 1036 (D.C. Cir. 1976); *Metzenbaum v. Columbia Gas Transmission Corp.*, Opinion No. 25, 4 FERC 61,277, (1978).

The Commission's Role

The Commission is responsible for the establishment of fair and reasonable rates which reflect the prudently incurred costs of property that is used and useful in the provision of utility service. It is therefore incumbent upon us to determine whether an investment, in this case River Bend 1, was prudently conceived and its costs prudently incurred prior to causing ratepayers to pay for that investment. It is our responsibility to investigate the issue of prudence.

The Significence of Prudence in Ratemaking

We have repeatedly held that utility rates should only reflect prudently incurred costs of providing service. Imprudent, unlawful, or unreasonably incurred costs are precluded from rate recognition. *State of Missouri ex rel. S.W. Bell Telephone Co. v. P.S.C. of Missouri*, 262 U.S. 276, 289 N. 1 (1923) (Brandeis and Holmes J.J. concurring); *Federal Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 501 (1944). In other words, prudence qualifies costs which are allowed to be reflected in rates. Imprudence disqualifies costs from being reflected in rates. The importance of the prudence standard stems

directly from the monopoly status of the utility co pany. *South Central Bell Telephone Co. v. La. Pub Service Comm.*, 373 So. 2d 478, 480-81 (La. 1979 *Morehouse Natural Gas Co. v. La. Public Service Comm* 162 So. 2d 334, 338 (La. 1964); *Midwestern Gas Tra Co.*, 36 FRC 61, 70 (1966), reh. denied, 36 FPC 5 off'd; *Midwestern Gas Trans. Co. v. F.P.C.*, 388 F.2d 4 448 (7th Cir. 1968), cert. denied, 391 U.S. 928 (196 Since ratepayers have only one power supplier, they a dependent on utility management to make reasonable tempts to minimize costs. However, the managers of t utility are responsible to the shareholders and cannot presumed to automatically put the interests of ratepaye over those of the investors. *Federal Power Comm. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944); *Mo house Natural Gas Co.*, supra.

By only allowing rate recognition of prudently incur costs, we can protect the interests of customers wh fairly compensating the investors. Further, the prude principle is not symmetric with respect to rewards a penalties. Utilities are expected to be prudently ma aged and their reward is full cost recovery. However, they are not prudently managed, then there is a penal which is less than full cost recovery.

Practical Application of the Prudence Standard by the Commission

The prudence standard concerns the decision maki process. The decision making process includes decisi inputs, assumptions, forecasts and studies which mig have affected the decisions made by management. T prudence standard addresses the total process. Decisio must be shown to be the result of a logical process, guid by a reasonable set of considerations, encompassing re vant information known or which should have been kno at the time. *Municipal Light Boards*, supra.; *Metz baum*, supra.

A standard of comparison is necessary in order to determine prudence in an after the fact evaluation of a decision process. It is generally agreed that decisions are prudent if they are consistent with the actions of a "reasonable man," possessing the proper qualifications. *Municipal Light Boards*, supra.; *Metzenbaum*, supra; *Just and Reasonable Rates for Sales of Natural Gas*, Opinion No. 699-B, 52 FPC 700, 703 (1974), aff'd sub nom.; *Shell Oil Co. v. F.P.C.*, 520 F.2d 1061 (5th Cir. 1975) reh. denied 525 F.2d 1261 (5th Cir. 1976), cert. denied, 426 U.S. 941 (1976). In the case of GSU and their River Bend 1 decision process, the appropriate standard for the "reasonable man" should be competent utility planners, managers and executives, under the circumstances prevailing at the decision time.

The prudence standard should apply to the overall process due to the cumulative nature of the decision making process. It has been argued that individual assumptions or even decisions may be unreasonable, so long as they do not effect the final outcome of the decision making process. It has also been argued that failure to perform economic studies may not be imprudent, so long as reasonable studies would have supported the decision to continue construction of the project. Gulf States witnesses have testified that use of inappropriate cost estimates for River Bend was not imprudent if the use of correct cost estimates would not have resulted in a different decision. If management was a series of independent, unrelated decisions these arguments might have some merit. However, management and planning decisions are cumulative. Each new decision is a product of all previous decisions and perceptions. If the overall process of decision making is flawed, it is impossible to distinguish the flawed decisions from the process itself. In the case of a utility such as Gulf States, the reasonable planner will carefully review decisions whenever material factors (i.e. cost estimates or load forecasts) change. In the

uncertain environment faced by utility decision makers it is difficult to make the correct economic decisions, even when the process is sound. Consequently, it is unreasonable to expect that an unsound process will result in an acceptable outcome. The staff prudence investigation properly reviewed the planning process as well as the resulting decisions that gave rise to the construction and completion of the River Bend 1 nuclear unit.

A prudence review is necessarily retrospective because it involves a review of past circumstances, past information available and past decisions. A prudence review requires use of contemporaneous knowledge and data within the context of the circumstances existing at the time critical decisions were made. A prudence review must not rely on hindsight, whereby past decisions and circumstances are evaluated in light of subsequent knowledge. *Municipal Light Boards*, supra.; *Metzenbaum*, supra.; *Just and Reasonable Rates*, supra.

The determination of prudence or imprudence is then a determination of reasonableness in the planning process and the decisions that were made given the circumstances at the time with the information that was known or knowable. *Municipal Light Boards*, supra.; *Metzenbaum*, supra.; *Just and Reasonable Rates*, supra. Prudence is not a function of the ultimate result. An unreasonable planning process and unreasonable decision could result in a good outcome. Likewise, a reasonable planning process and reasonable decision could result in a bad outcome. However, the worst of all possibilities is an unreasonable planning process, an unreasonable decision and a bad result. The result does not in and of itself determine prudence. It is the comparison to the prudence standard that leads to a finding of prudence or imprudence.

A. PRUDENCE INVESTIGATION

Nature of Investigation

The Commission Staff reviewed and investigated the planning process and decisions of Gulf States Utilities that gave rise to the construction and ultimate completion of River Bend 1.

The Staff and Intervenors adopted the definition of prudence provided by Gulf States' witness, Darrell A. Smith, as follows:

> "Prudent decisions are those which reasonable individuals would, or could, have made based on the facts as known or which were reasonably knowable at the time."

As a result of its prudence investigation, the Staff concluded that Gulf States was imprudent in its decision to restart River Bend 1 in 1979, and has recommended an imprudence disallowance from rate base of $1.4 billion. Because of the magnitude of such imprudence and such a disallowance, it is appropriate to set forth in this Order a discussion of Gulf States' position regarding prudence, and the Staff's analyses, findings and conclusions, as follows.

Gulf States' Case

In its direct case, Gulf States offered testimony from numerous witnesses which attempted to establish the basis for the Company's entitlement to the requested rate increase. Policy witnesses such as Dr. Linn Draper presented testimony of the Company's perceived need to construct additional generating capacity in the mid to late 1970's as a result of load growth and changes in the Fuel Use Act which necessitated fuel diversification. Direct testimony included generic discussions of the prudence standard and its proper application (witnesses Landon and Marshall), as well as evaluation by both internal management (Norman R. Lee) and outside con-

sultants (Smith and Hogan) of Gulf States' specific planning activities including generation plans and load forecasting. These witnesses maintained that the Company's planning procedures were acceptable at the time, that its load forecasting was above average compared to industry standards of performance and that it met the prudency test with respect to the decision to build River Bend 1.

Gulf States additionally presented expert testimony (Perla) attesting to the Company's effective management control in the construction phase of the River Bend project, characterizing it as one of the more successful nuclear power plant projects in the country.

The Staff, in its prudence investigation, interviewed Company personnel directly involved in the planning and decision processes, reviewed contemporaneous Company and external documents, cross examined Company personnel and ultimately, independently reconstructed the Company's planning environment and relevant decision factors.

The initial Staff review found that the Company had acted in a reasonable and prudent manner prior to the period of late summer 1978. This encompassed the initial River Bend 1 engineering and construction commencing in the early 1970's to the early 1977 time frame when site construction activity was suspended due to lower load growth projections and financial deterioration. By late summer 1978, however, the Company began studies and analyses that resulted in the Board of Directors authorizing the restart of site construction. It is this "restart" decision period on which the Staff focused in its prudence investigation.

The Staff prudence investigation was thus directed toward the specific issue of the reasonableness of the River Bend 1 restart decision given the facts that were known or knowable at that time and under the circumstances. To determine the prudence of this decision, the

Staff performed two concurrent sets of activities: first, a review of Gulf State's planning activities during this approximate time period, second, an independent reconstruction of the planning environment at that time in order to establish a reasonable or prudent standard against which to evaluate Gulf States' planning activities and decisions. The following sections describe these activities, the Staff's findings and their conclusions.

Staff Review of the Gulf States' Planning Process and Decisions Related to River Bend 1

1. *Scope of Investigation*

The Commission hired three consulting firms to assist it in the evaluation of River Bend 1: Kennedy and Associates, O'Brien-Kreitzberg & Associates, and Komanoff Energy Associates. All three firms performed their reviews, prepared testimony and underwent extensive cross examination.

The investigations centered upon the planning process at Gulf States. The planning process for choosing among generation expansion plan options consists of the following major elements:

THE UTILITY PLANNING PROCESS
PRUDENCE INVESTIGATION—REVIEW OF
UTILITY PLANNING PROCESS

Load Forecasting	1. Identify Need For New Capacity
Generation Expansion	2. Identify Capacity Options
Economic and Financial	3. Evaluate Capacity Options
Decision	4. Management Selection Of Capacity Option
Construction	5. Schedule And Costs

Kennedy and Associates reviewed the load forecasting process, the generation expansion plan options and the financial and economic evaluation leading to the River Bend 1 restart decision. O'Brien-Kreitzberg reviewed the construction and schedule components of the planning process. Komanoff did not participate in this phase of the investigation. This aspect of the investigation consisted of:

1) Review of relevant Gulf States' planning documents, materials, models, correspondence, workpapers, assumptions and data.

2) Extensive interviews of Company personnel involved in the planning process in all relevant areas.

3) Review of external planning documents, economic, political and financial environments, outside participation arrangements and availability of alternative generation options.

4) Cross examination of Company witnesses, some of whom were directly involved in the planning process and the decision to restart, others who had no involvement at the time but who had been engaged by the Company to retrospectively review selected facets of the Company's decision to restart.

2. *Staff Findings*

a. Load Forecasting

The issue of load forecasting is significant in a utility's planning process because it indicates a need or lack thereof for additional capacity. A utility attempts to time the completion of new generating capacity to correspond with its need as evidenced by its peak load forecast. Peak load forecasting is, therefore, a critical element, and indeed one of the primary determinants of the need for new generation in the planning process.

Kennedy and Associates reviewed the load forecasting methods by Gulf States Utilities during the restart (summer 1978 to early 1979) time frame. Specifically, their findings were based upon reviews of documentation provided by Gulf States as well as interviews with individuals who directly performed or reviewed the forecasts, up to the highest levels in the Company.

During 1972-1976, Gulf States' peak load growth grew at an annual rate of approximately 3.56%. For 1977 and 1978, peak demand grew at 11.9% and 10.3% respectively. Kennedy and Associates determined that the load growth during 1977 and 1978 significantly influenced the Company's expectations regarding future peak demand growth on the system and contributed significantly to the decision to restart River Bend 1. Thus, it was imperative to examine the reasonableness of the Company's projections and determine whether the Company's approach could have been expected to yield reasonable results.

The Company prepared a special peak demand forecast in the summer of 1978. This was a critical forecast for the River Bend 1 restart decision, and assumed a peak demand growth of approximately 5.4% for the six years 1978 through 1984. However, after adjusting for the loss of some cooperative load (200mW), the expected peak demand growth from this 1978 period was actually closer to 5.9%. This forecast resulted in an additional 871 mW of peak load projected by 1985 when compared to the Company's previous forecast.

Despite Gulf States' testimony that its forecasting methodology and techniques were appropriate and consistent with industry practice (rebuttal witness Dorsey), Kennedy and Associates found that Gulf States' peak load forecasting methodology was far less than state of the art for the electric utility industry at the time of the restart analysis and decision. In fact, the review indicated that the Gulf States' peak load forecasting proc-

ess contained a significant number of flaws. One of these flaws was the fact that the Company produced a peak demand forecast for only six years into the future. The 1978 forecast, which was prepared following the 1978 Gulf States' system peak, ran until the 1984 system peak, which was one year prior to the projected commercial operation date of River Bend 1. Thus, the critical period for evaluating the economics of River Bend 1 was not even included in Gulf States' peak demand forecast. In effect, the Company projected load to one year prior to River Bend 1 commercial operation. They had no knowledge of peak demand beyond that date. To achieve peak load projections beyond the sixth year, the average growth of the six year period was merely extrapolated, and ignored significant changes in growth from:

—Price elasticity effects (the dampening of demand due to higher prices)

—New customers (not yet located on the system)

—Existing customers (assumed near term growth *projected by customers* would continue indefinitely).

Thus, it was not possible for Gulf States to achieve a reasonable peak load forecast utilizing their methodologies at that time. Cross examination of Mr. Norman R. Lee revealed that Gulf States itself recognized that the ability of the Company to produce reasonable and accurate load and energy forecasts was lacking and needed to be improved to at least the level of other electric utilities in the United States. This fact was established in a report issued by a working group of Gulf States personnel known as the Strategic Planning Committee. Interestingly, Mr. Lee also noted in his rebuttal testimony that the Company's load growth projections were "almost irrelevant to the decision to build River Bend", citing the 1978 Fuel Use Act as the driving force behind the decision to add new capacity. Gulf States also prepared documents in

1979 which recommended a complete evaluation of the forecasting process at Gulf States. Further, during this time frame, the peak demand forecast was prepared by a company transmission planning engineer. Preparation of peak load forecasts by the transmission planning department is not and was not the common practice of electric utilities in the United States during the late 1970's time period. This was unusual and outside of the mainstream.

b. Generation Expansion

Once a need for additional generation capacity is identified, the planning process should identify workable options to supply that requirement. These options are initially screened based upon numerous criteria, including cost and fuel availability, among others. The generation expansion options identified by Gulf States during the summer 1978 to early 1979 restart time frame included:

1. Complete River Bend 1 as a nuclear unit;
2. Cancel River Bend 1, and replace it with multiple smaller coal units;
3. Cancel River Bend 1, and advance the Nelson 5 coal unit; or
4. Cancel River Bend 1, and replace it with a scrubbed lignite coal unit.

Gulf States assumed in the small coal units study that the fuel sourcing, permitting, siting and construction could be completed for these units in less than six years. The third study assumed that the Nelson 5 unscrubbed coal unit could be brought on line within 6 years by December 1982. We find that arguments offered by Company witnesses denigrating Gulf States' own assumptions at that time were based upon hindsight and the availability of subsequent knowledge. The assumptions uti-

lized in these Gulf States restart period studies were obviously indicative of beliefs incorporated by Company management in their own planning process at the time of the restart.

c. Economic and Financial Evaluation

Once workable capacity options have been identified, they are compared through economic analyses to determine the least cost alternative. The least cost alternative is then selected unless other financial constraints are identified. Fuel availability, fuel diversity, construction, scheduling, and other constraints would have been resolved prior to this point. Mr. Lee, President of Gulf States during this decision period, unequivocally stated that Gulf States pursued a least cost strategy to select its generating options from among those passing muster to that point.

The least cost option would therefore be considered to be the reasonable selection absent any financing constraints. To determine the least cost option, utilities utilize a variety of economic analysis tools which properly account for the relationships between fuel costs, capital costs, operating characteristics and financing costs. The standard and most simple technique, employed by utility planners for decades, is to determine a levelized busbar cost for each option, the lowest being the most attractive. Gulf States also utilized this technique, although incorrectly in every instance which was documented. The errors were multifaceted:

1) Knowingly understating the capital costs of River Bend 1. Several Gulf States witnesses, including Gulf States' Chief Financial Officer, Joseph L. Donnelly, and President, Norman R. Lee, acknowledged that "official" cost estimates were utilized rather than the expected higher costs. This made the River Bend 1 option more attractive when compared to other options.

2) Not including the costs of carrying charges paid by ratepayers during construction in the analyses. This understated capital costs of all options, but more so on the River Bend 1 option due to its significantly higher relative cost.

3) Utilizing fixed charge rates (cost of money plus depreciation) that were substantially understated according to their own internal documents. This item substantially understated the capital cost portion of the levelized busbar costs, but more so on the River Bend 1 option due to its significantly higher relative cost.

4) Incorrectly utilizing standard levelized busbar cost and other economic evaluation tools by not properly levelizing all components of the busbar cost or otherwise utilizing current year dollars for comparison.

5) Failing to evaluate uncertainty by varying assumptions. Prior to the restart period, this had been a routine activity performed by the Company and its consultants.

Other economic evaluation techniques, although sparingly utilized by the Company, were similarly flawed both in data and in methodological application.

The Company also performed financial analyses of selected options in the summer of 1978, entitled the "River Bend 1 Restart Package." According to Norman Lee, this package of studies was reviewed in Beaumont in early August 1978 by senior Gulf States management and members of the Board of Directors. These studies incorporated the effects of their recent special load forecast discussed previously. They were key studies leading to the reactivation of River Bend 1 site construction. Unfortunately, the corporate model contained numerous programming errors and deficiencies which were later identified by Coopers and Lybrand, the Company's auditors. The effects of cancelling River Bend 1 were incorrectly modeled in the cancellation studies included in this restart

study package. In addition, the cost of River Bend 1 was significantly understated compared to cost estimates which had been solicited and recognized as reasonable by management.

d. Construction and Scheduling

O'Brien-Keitzberg & Associates reviewed the construction and scheduling of River Bend 1 from the perspective of the restart period. They found that the cost estimates of River Bend 1 were understated due to the exclusion of any cost or schedule contingencies and due to the nonrecognition of the Three Mile Island accident which occurred in March 1979. They found that the construction schedule was overly optimistic for the projected costs, and that the expenditures made to accelerate the construction schedule, $74.68 million, should be disallowed. Witnesses for the Company disputed these findings, maintaining that there was no mismanagement in the construction phase and that the schedules and costs were reasonable in comparison with similar projects.

3. *Staff Conclusions*

Based upon the various consultants' findings, the Staff concluded that the load forecasting process employed by Gulf States during the restart period was unreasonable and could not be expected to produce the reliable and accurate results necessary to support the need for additional generating capacity.

The Staff further concluded that the economic and financial evaluation portion of the planning process, necessary for the proper selection of generating unit options, was flawed to the point its simply could not provide a reasonable or reliable determination of the least cost option.

Independent Staff Investigation

1. *Necessity of Independent Staff Investigation*

The Staff review of the Gulf States planning process resulted in the conclusion that the planning process at the time of restart was unreasonable and imprudent and could not have resulted in a prudent decision. However, as previously indicated herein, the decision may still have been the right one, given the facts known or knowable within the context of the circumstances. It was therefore necessary for the Staff to independently reconstruct a prudent planning process within the context of the late 1978 to early 1979 restart decision period to determine whether the decision to restart River Bend 1 was reasonable despite the Company's deficient planning process. Kennedy and Associates prepared a peak load forecast based upon econometric techniques utilized by most mainstream electric utilities during the restart period. Similar techniques were adopted by Gulf States subsequent the restart decision. Kennedy and Associates also performed extensive analyses of a lignite option in comparison to the restart and completion of River Bend 1. Komanoff Energy Associates performed extensive analyses of advancing the completion date of the Nelson #5 unscrubbed coal unit as an alternative to the restart and completion of River Bend 1.

2. *Staff Findings*

a. Load Forecasting

Kennedy and Associates, utilizing its experience in preparing load forecast for utilities during the restart decision time frame, developed an independent peak demand forecast. The model was developed from the perspective of the 1978 time frame utilizing data and methodologies commonly available and widely utilized by utilities during this period. Their approach was to develop a reasonable, though by no means "state of the art,"

method which could easily have been utilized by Gulf States in the 1978 period.

The results of the Kennedy and Associates forecast projected a compound average growth rate for the period 1978 through 1985 of 3.7%, which was significantly lower than the Company's special 1978 projection of 5.9%. It was, however, very close to the growth rate from the Company's previous "official" load forecast which was superseded by the special 1978 projection. The difference between the Staff's independent peak load forecast and the Company's special projection for 1985, the projected in-service year for River Bend 1 was 850mW. This 850mW load difference is greater than Gulf States' share of the River Bend 1 unit.

b. Generation Expansion

The Staff's independent investigation identified two primary replacement options for River Bend 1 as alternatives to restart. Kennedy and Associates reviewed the "cancel River Bend 1 and replace with a scrubbed lignite unit" option. Komanoff Energy Associates reviewed the "cancel River Bend 1 and replace with Nelson 5" option. This latter option involved the acceleration of the construction and in-service date of a future unscrubbed coal unit by Gulf States.

The Staff and Company each presented expert witnesses on the issues of lignite availability and projected lignite fuel costs from the 1978 perpective. There was also testimony on the issue of construction time requirements necessary to complete siting, permitting and construction of a lignite or coal unit from the perspective of the restart decision period.

Based upon a review of the evidence presented, the Staff found that lignite was a viable alternative for the Company to River Bend 1. Adequate lignite resources were identified by Staff witnesses and in a 1975 study

prepared for Gulf States. Lignite reserves were available in the northwest parishes of Louisiana and east central regions of Texas, within and in close proximity to the Gulf States service territory. This is certain and is not disputed by the Company. There is more uncertainty with respect to the perpective on projected lignite fuel costs, and this was addressed in some detail by company witnesses Landon and Richardson, however, the Staff economic and financial evaluation specifically dealt with this issue and the inherent uncertainty. The issue of lead times necessary for the siting, permitting and construction of lignite or coal units must be considered within the context of prevailing knowledge at the time of restart, not in light of subsequent knowledge. The Company assumed at the time of its restart decision analyses that it could have lignite or coal units in commercial operation by 1984 even though permitting or siting activities had not yet been initiated for those units. We find this evidence more persuasive than the Company's witnesses who now find, in hindsight, based upon actual information available in years subsequent to the restart decision, that lignite units have actually taken seven to nine years to site, permit and complete.

The Company does not dispute that acceleration of the Nelson 5 coal unit was an alternative to the completion of River Bend 1; however, they believed that both were necessary. Consequently, the Staff found that the lignite option and the Nelson 5 acceleration option were both viable options.

c. Economic and Financial Analyses

Because Gulf States' assumptions and planning process at the time of the restart decision were determined to be unreasonable, the Staff consultants undertook to recreate the planning environment as a framework for reevaluating Gulf States' decision to restart the River Bend project. Kennedy and Associates assumed the task with

the knowledge of the difficulty of determining precisely what assumptions might have been made by the reasonable man at the time. The 1978-1979 time frame was characterized by uncertainty. Reasonable analysts could differ with respect to their forecasts of the future. The Kennedy and Associates approach was to develop a reasonably broad range of assumptions on which to base their analysis of River Bend's economic viability.

Kennedy and Associates utilized a Risk Analysis Model developed in 1973-1974 by Dr. Gerald Theusen of the Georgia Institute of Technology. The model was developed specifically for the economic analysis of nuclear versus fossil power plants. The benefit of the model was that it allowed one to evaluate ranges of economic assumptions rather than point estimates. In essence, the model rapidly performed a broad range of levelized buscar cost studies, one of the industry's standard least-cost evaluation techniques, and provided a distribution of the levelized costs of generating unit alternatives to enable comparison. The model then simply tabulated the results of the numerous scenarios and determined the best economic choice under the wide range of assumptions, reflecting the uncertainty facing the utility planner at that time.

As noted earlier, Kennedy and Associates, after analyzing available alternatives within the context of Gulf States' planning requirements and existing legislation including the Fuel Use Act and the Clean Air Act, determined that a lignite fueled-fossil unit would be the most likely alternative to the restart of River Bend 1. Consequently, this phase of the Staff's independent investigation focused upon the lignite versus the restart River Bend 1 option.

Kennedy and Associates utilized company documents as well as contemporaneous industry data and statistical regression techniques to develop the broad ranges of key inputs to the risk analysis model. These inputs in-

cluded fuel cost, capital cost, capacity factors, heat rates, O & M expenses, as well as other costs such as additional transmission requirements and key economic and financial assumptions such as future inflation, discount rates and fixed charge rates. The Staff's analysis also incorporated complete recovery, including rate base treatment, of the River Bend 1 investment to that date plus additional termination costs.

The results of the risk analysis model indicated that a reasonable man, employing known economic assumptions and levelized busbar cost techniques, would have expected a lignite unit to cost much less to own and operate than a nuclear plant. The levelized expected annual cost of the lignite unit was $484 million compared to $548 million for River Bend 1, an annual difference of $64 million. The risk analysis model revealed that under virtually every possible combination of reasonable assumptions, the lignite unit was the lower cost option. The results of the Kennedy and Associates analysis indicate that had Gulf States' planners employed reasonable methods and assumptions in their analyses, they would have cancelled River Bend 1 in 1979 and replaced it with a lignite unit. Even the best possible outcome for River Bend was neutral with respect to the lignite alternative. To exacerbate the unattractiveness of River Bend, the Three Mile Island accident occurred in March of 1979. Any hesitation to cancel River Bend should have disappeared, as a reasonable man would have recognized the economic uncertainty cast upon the nuclear option as a result of the accident. Because of a lack of proper analysis and the use of understated cost estimates, Gulf States mistakenly opted to complete River Bend.

Kennedy and Associates' use of the risk analysis model and resulting conclusions were severely criticized by a Gulf States witness (Dr. Pleatsikas) who believed the model employed unrealistic assumptions which skewed the results. According to Gulf States, correction of the

data would have resulted in nuclear capacity being favored over lignite. This testimony was not persuasive, however, in that it selectively modified certain narrow input data parameters to accomplish a predetermined result.

The Staff's analysis indicates that Gulf States' management decision to restart the River Bend 1 nuclear project in the 1979 time frame was imprudent. Gulf States did not perform reasonable economic analyses as the basis for their restart decision. Kennedy and Associates has shown that a reasonable economic analysis performed in the 1979 time frame would have led Gulf States' management to conclude that cancellation of River Bend 1 with replacement by a lignite unit was the more reasonable and appropriate choice to meet its long term generation requirements. The result of Gulf States' imprudent decision making was the continuation of the project with a final completion cost approximating $4.5 billion. Economic damages result from Gulf States' management imprudence with regard to River Bend.

B. DAMAGES

Cancellation of River Bend 1 at the time of the restart decision and replacement with a lignite unit would have resulted in substantially lower costs to ratepayers today. The damages resulting from imprudently completing River Bend 1 can be calculated in two parts:

1. The difference between the current cost of River Bend 1 and the cost of a lignite unit completed in 1985 (including the cost of additional transmission facilities).

2. A credit for the sunk cost associated with cancelling River Bend 1 in January, 1979 (including cancellation charges).

It is reasonable to assume that the Company should have included the costs of sunk investment and cancellation charges in weighing the appropriateness of can-

celling River Bend 1 in 1979 and alternatively construing a lignite unit. Thus, it is appropriate to factor these costs in the calculation of economic damages.

To summarize, the economic damages of Gulf States' imprudent planning process and decision to restart the River Bend 1 nuclear project is equal to the difference between the completed cost of River Bend 1 and the cost of a comparably sized lignite unit and additional transmission facilities plus sunk investment and cancellation charges. The Staff has determined that the economic damages resulting from Gulf States' management imprudence with respect to the River Bend 1 nuclear project are $1.4 billion on a total company basis.

The damages (disallowance for Gulf States' 70% share of River Bend 1) actually exceed the $1.4 billion level. The reason for this is that the $1.4 billion only covers Gulf States' "owned" portion of River Bend 1 but does not include the imprudent portion of the Cajun buybacks. The imprudent portion of the Cajun buybacks is that amount of the charges from Cajun to Gulf States which covers the disallowed portion of River Bend 1. Since Cajun bases its pricing of the buybacks to Gulf States on the actual cost of River Bend 1, that cost would be reduced by the amount of the disallowances. Effectively, the disallowance on a total River Bend 1 basis (both Cajun's share and Gulf States' share) would be the $1.4 billion, adjusted to reflect 100% of the plant. The disallowance on this basis would be $2.0 billion.

To derive the level of damages, Kennedy and Associates determined that the cost of a hypothetical 658 mW lignite plant (Gulf States' share of River Bend 1) completed at the same time as River Bend 1 would have been approximately $816 million. This figure was based upon the cost of Houston Lighting and Power Company's Limestone 1 lignite facility which went into commercial operation in 1985. The actual 1985 completion cost on a $ kW basis was escalated to a 1986 cost to assure comparability

with River Bend 1, which was completed in 1986. As such, this cost represents a fair and reasonable estimate to construct a lignite unit within the same geographic region as Gulf States. In addition to the direct cost of the lignite unit, Kennedy and Associates added approximately $100 million for additional transmission facilities. Thus, Kennedy and Associates estimated that the cost of a lignite plant plus an allowance for transmission facilities with a 1986 in-service date would have been $916 million. To the cost of this hypothetical lignite unit, Kennedy and Associates added River Bend 1 sunk costs plus termination costs. The basis for sunk costs were direct construction cost of $302.5 million plus AFUDC of $42.1 million as of the hypothetical January 1, 1979 cancellation date. Additionally, costs of terminating the project were set at $150 million. Total cancellation costs would then equal $496.4 million. However, the cancellation of River Bend 1 would have resulted in a tax write-off. Thus, it was necessary to adjust cancellation costs to reflect the tax write-off as of a 1979 cancellation date. A composite 1979 State and Federal tax rate of 48.42% results in a tax savings of $219.1 million. Consequently, the net after-tax sunk cost was $275.5 million (as of 1979). This amount was escalated to 1987 at an estimated cost of capital of 9.5%, resulting in an escalated cancellation cost of $569 million. This sunk cost was added to the cost of the lignite unit in deriving the economic damages estimate.

An additional cost arises from the tax preferences between nuclear and coal units. Nuclear units have a ten year tax life compared to fifteen years for coal units. This tax life difference results in greater tax benefits associated with the nuclear unit. The result is to increase the comparison cost of the lignite unit by $40 million. The total equivalent cost of the lignite unit, then, was computed to be $1.53 billion or $2,319/kW. This cost results from an actual lignite cost of $1,241/kW plus additions of $1,078/kW.

River Bend 1 costs are from Gulf States' rate filing in Docket No. U-17282. These costs are shown to be $2.93 billion (the Company's share of River Bend 1), or $4,448/kW. The difference between the cost of River Bend 1 and the total equivalent cost of the replacement lignite unit ($2,319/kW) represents the economic damages of Gulf States' management imprudence. The total dollar figure of damages is $2,129/kW or approximately $1.4 billion on a total company basis. This is equivalent to approximately 48% of the Company's share of the total cost of the unit.

The Staff presented evidence that a $1.4 billion disallowance would result in a 54% reduction in Gulf States' equity capitalization and a 56% reduction in future earnings available to common equity. A $1.4 billion disallowance would eliminate all of Gulf States' retained earnings and $397 million of paid in capital. The Staff has determined, however, that Gulf States can remain financially viable with a $1.4 billion disallowance.

C. PHASE-IN PLAN

All parties involved in this matter agree that traditional ratemaking treatment of River Bend 1 would result in severe rate shock.

With the $1.4 billion disallowance recommended by the Staff and full rate base treatment of the prudently incurred costs of River Bend 1, the actual Louisiana retail first year revenue requirement associated with River Bend 1 (including Cajun buybacks) would be approximately $300 million. The economy of Louisiana simply could not absorb such a rate increase.

The Company has proposed an eight-year phase-in whereby a portion of the River Bend 1 revenue requirements would be deferred in the first three years, and then recovered in the last five years of the phase-in period. The Company's proposal would call for three annual rate

increases, $155 million the first year, $127 million the second year and $78 million the third year. The amount of increase subsequent to the first year would be dependent upon the operations and the financial condition of the Company during the phase-in period. Sales levels, revenues before rate increases, rate of return, and expenses were all held constant in developing the phase-in plan. It is reasonable to expect that these components will vary in actuality from their projections.

The Staff has proposed a ten-year phase-in plan, with four years of deferrals and six years of deferral recovery. With a $1.4 billion ($677 million for the Louisiana retail jurisdiction) imprudence disallowance and a 14% return on equity, the Staff recommended a rate increase for River Bend 1 of $77 million in 1988, with subsequent rate increases in 1989 through 1992 of approximately $50 million followed by a smaller increase in 1993. As with Gulf States' proposal, the exact amounts of those subsequent increases would be dependent on the operations and financial condition of the Company during the phase-in period. With a $1.4 billion ($677 million for the Louisiana retail jurisdiction) disallowance and the 12% return on equity adopted herein, the base rate increase required for River Bend 1 would be $69 million in 1988 disregarding fuel savings.

The Staff has recommended and the Company has agreed that the actual amounts of future rate recovery under the phase-in plan should depend on the specific rate filings presented by the Company in each year of the phase-in period. Annual rate filings by the Company would provide flexibility to all concerned to reflect in future rates any changes in the Company's cost of capital, taxes and River Bend operation and maintenance expenses. In addition to requiring Gulf States to make annual filings with the Commission with respect to future rate increases for River Bend 1, the Staff has recommended that the Commission closely monitor the Com-

pany's operations and financial condition throughout the phase-in period.

The Commission has carefully reviewed the phase-in plan accounting requirements of the Financial Accounting Standards Board in light of the testimony presented by both the Staff and the Company. Those requirements are set forth described in Statement of Financial Accounting Standards No. 92 (SFAS-92) and are summarized as follows:

—A formal phase-in plan which is agreed to by the regulator.

—Recovery of all costs deferred under the plan within ten years of the initial deferral.

—Successively equal or lower percentage rate increases.

—Specified timing for recovery of the deferred costs.

We have approved and adopted the phase-in plan structure for prudently incurred River Bend 1 costs, as described in the Report of Special Counsel, predicted upon periodic evidentiary hearings to determine the extent of and reasonableness of actual variations from projections incorporated in that phase-in plan. This comprises a formal phase-in plan and thereby meets the first of the four SFAS-92 requirements. The phase-in plan also provides for recovery of all costs deferred under the implementation of this plan within ten years from the date of the final Order in this Docket, December 15, 1987, thereby complying with the second accounting requirement. Each successive rate increase, as currently envisioned under the phase-in plan adopted is to be a lower percentage increase than the preceding step, thereby complying with the third accounting requirement. The specific timing of recovery of the costs deferred under the plan, as indicated in the Order, is contingent only upon agreement between the Company and Staff of the procedural time-

table for the Company's evidentiary filings and the necessary hearing schedule. The Commission will not place itself, and indeed cannot place itself, in the position of ordering Gulf States to file more frequently or less frequently than it should desire for subsequent rate increases under the framework of this phase-plan.

Consequently, it is the majority opinion that we have adopted the phase-in plan structure recommended by the Staff for the prudently incurred River Bend 1 investment costs, and further, that the phase-in plan represents a true and qualified phase-in plan inasmuch as it clearly meets the accounting requirements of SFAS-92.

Under this phase-in plan Gulf States is to defer River Bend 1 revenue requirements on prudently incurred costs not currently recovered in the first year rate increase granted herein. The Commission has not provided the exact amount to be deferred under the phase-in plan due to the lack of evidence in the record detailing the accumulated deferral amounts, through the date of the final Order, resulting from the Commission's December 2, 1986 accounting order, the inclusion of the first year fixed component of the Cajun buyback costs as a Non-River Bend non-fuel clause purchased power revenue requirement, and the recognized need by both the Company and the Commission Staff for a "true-up" mechanism or proceeding to account for the changes in actual operating expenses as compared to the projections contained in the Company's updated filing.

This phase-in plan reflects a forty year useful life for River Bend 1, adjusted for the depreciation already accrued by the Company utilizing its proposed thirty two year life (which is also reflected in the accumulated deferrals under the Commission's December 2, 1986 accounting order). The phase-in plan also reflects a ten year straight line amortization of the accounting order (December 2, 1986) deferrals and related deferred tax effects.

D. IMPLEMENTATION

The Staff has made a finding of imprudence with respect to River Bend 1 and has recommended that $1.4 billion on a total company basis ($677 million for the Louisiana retail jurisdiction) of River Bend 1 be disallowed from rate base. The Commission accepts the findings of the Staff with respect to imprudence.

Accordingly, the Commission orders Gulf States to exclude $1.4 billion of River Bend 1 from its rate base. Gulf States is encouraged, however, to pursue accounting options which would limit the impact of this disallowance on the Company's financial statements. The Commission also directs Gulf States to make a complete inventory of all its earning and non-earning assets and to identify those properties that can be sold. The purpose would be to use the cash proceeds to reduce its debts and obligations.

The Company should also continue to defer River Bend 1 revenue requirements on prudently incurred costs not recovered under the Order and this Opinion for future consideration by the Commission within the framework of the phase-in plan discussed in the prior section of this Majority Opinion. Such future consideration by this Commission may be upon the Company's making an abbreviated report to the Commission during each year of the phase-in period, and said report should address the Company's then current financial condition and operations.

VI. RATE DESIGN

With the exception of the allocation among the various customer classes of the rate increase granted herein, all of the rate design issues in Gulf States' application are deferred for future consideration by the Commission.

Gulf States has proposed to allocate an increase in base rates in the following manner: 32.32% to residentials; 29.89% to general service; 36.17% to industrials;

and the remaining 1.61% to municipal water pumping and street lighting. As shown in the testimony of the Staff, this allocation is very similar to an allocation based on total revenues.

The Commission has reviewed all of the allocation methods available and based on our review, we have decided to adopt the test year kilowatt-hour usage method for the various customer classes. In recent proceedings before the Commission, we have ordered allocation of rate increases in proportion to the test year kilowatt-hour usage of the various customer classes. The Commission has adopted this rate allocation methodology in the following dockets:

(1) Docket No. 14690—Louisiana Power & Light (LP&L) (October 8, 1980)

(2) Docket No. 14078—Louisiana Power & Light (LP&L) (December 18, 1979)

(3) Docket Nos. 15297 and 15622—Central Louisiana Electric Company (CLECO) (October 18, 1983)

(4) Docket No. 14250—Southwest Electric Power Company (SWEPCO) (May 19, 1980)

(5) Docket No. 14495—Gulf States Utilities Company (GSU) (March 11, 1980)

Consistent with past Commission action, the rate increase granted herein shall also be allocated among the various customer classes in proportion to the test year kilowatt-hour usage of the classes, as follows: 27.40% to residentials; 26.90% to general service; 44.30% to industrials; .60% to municipal water pumping; and .70% to street lighting. The resulting average cost per kilowatt hour, using September 1987 fuel charges, will be: 6.6¢ kwh for residentials; 5.9¢ kwh for general service; 4.5¢ kwh for industrials; 4.9¢ kwh for municipal water pumping; and 11.4¢ kwh for street lighting.

VII. Conclusion

For the foregoing reasons, the Commission finds that:

1) The Company was imprudent in their decision to restart the River Bend 1 nuclear unit in early 1979.

2) The Company should have instead constructed a lignite coal unit which would have resulted in lower costs to ratepayers.

3) The additional cost to the ratepayers of constructing a nuclear unit rather than prudently constructing a lignite unit results in an imprudence disallowance against the Company's 70% share of River Bend 1 of $1.4 billion on a total company basis. Accordingly, $1.4 billion is found to be imprudent and is disallowed from the rate base. The Company is encouraged to pursue accounting options which would limit the impact of this disallowance on the Company's financial statements.

4) No findings are made at this time respecting the Cajun buy-back arrangement.

5) The Company should continue to defer River Bend 1 revenue requirements on prudently incurred costs not currently recovered as a result of this Order, for future consideration by this Commission within the general framework of the phase-in plan recommended by the Staff, as outlined in the Report of Special Counsel. The form of the phase-in plan is approved, but the amounts of the rate adjustments in the second and all subsequent years of the phase-in period are not approved. Instead, all phase-in period rate adjustments shall be subject to evidentiary hearings to consider the Company's operations and financial condition, and shall require approval by a majority vote of the Commission prior to any adjustment. The dynamics of the annual evidentiary hearings shall be worked out between Commission Staff and the Company with proper consideration of the

magnitude of the work, the complexity of the issues, and the delays generally accorded in such proceedings.

6) The Commission also directs the Company to make a complete inventory of all its earning and non-earning assets and to identify those properties that can be sold. The purpose would be to use the cash proceeds to reduce its debt.

7) River Bend 2 cancelled investment costs will never be used or useful and should therefore not be recovered from ratepayers.

8) The return on equity should be 12.0%, which is consistent with the FERC benchmark rate of return and the rates of return recently granted by this Commision to other utilities. This results in an overall rate of return to be applied to rate base of 11.3%.

9) The increase shall be allocated among customer classes on the basis of test year kilowatt-hour sales. The Commission adopted this rate allocation methodology in the following recent dockets:

(1) Docket No. 14690—Louisiana Power & Light (LP&L)

(2) Docket No. 15297 and 15622—Central Louisiana Electric Company (CLECO)

(3) Docket No. 14250—Southwest Electric Power Company (SWEPCO)

(4) Docket No. 14495—Gulf States Utilities Company (GSU)

10) The amount of rate increase granted herein is a net $63.0 million on an annual basis, which reflects the effect of a proportionate share of the River Bend 1 fuel savings.

11) The interim rate increase of $57 million terminates upon the effective date of this Order.

12) Accordingly, the Commission hereby orders that the Company be permitted to increase its revenues by a net $63 million, after deletion of the interim increase, effective midnight December 15, 1987, and orders the Company to file revised tariff sheets in accordance with this Order.

13) Commissioner Owen dissents in that he would find imprudence at the $1.4 billion level, but would have allowed an inventory program and would have granted the Company a $92 million rate increase.

14) Commissioner Powell dissents in that he would make permanent the $57 million interim increase, employ a cap of 4.6¢ per kilowatt-hour in a sale-back provision under a Rehabilitative Requalification program, and find $1.4 billion to be imprudent, with instructions to the Company to cut expenses.

BY ORDER OF THE COMMISSION
BATON ROUGE, LOUISIANA
JANUARY 26, 1988

/s/ Louis J. Lambert, Jr.
LOUIS J. LAMBERT, JR.
Commissioner

/s/ John F. Schwegmann
JOHN F. SCHWEGMANN
Commissioner

/s/ George J. Ackel
GEORGE J. ACKEL
Commissioner

APPENDIX G

Order No. U-17282-C of the Louisiana Public Service Commission (December 15, 1987)

LOUISIANA PUBLIC SERVICE COMMISSION

Docket No. U-17282

IN RE: GULF STATES UTILITIES COMPANY, EX PARTE APPLICATION FOR AN INCREASE IN RATES FOR RETAIL ELECTRIC SERVICE

Order No. U-17282C

ORDER

(With Commissioners Lambert, Schwegmann and Ackel being a majority and Commissioners Powell and Owen dissenting)

The Commission (by majority vote of all Commissioners, with the exception of Commissioner Owen who sustained) denies the Company's $194 million rate application. The importance of the decision on the level of increase herein considered dictates a deferral of consideration of rate design issues, with the exception of the allocation of the rate increase granted herein, at this time.

The Commission adopts the Staff's findings and proposals as outlined in the Report of Special Counsel, except for their recommendations regarding the rate design

issues deferred herein, return on common equity, a return of and return on the River Bend 2 cancelled investment costs, and the allocation of the rate increase among the customer classes.

The Commission finds that:

1) The Company was imprudent in their decision to restart the River Bend 1 nuclear unit in early 1979.

2) The Company should have instead constructed a lignite coal unit which would have resulted in lower costs to ratepayers.

3) The additional cost to the ratepayers of constructing a nuclear unit rather than prudently construcing a lignite unit results in an imprudence disallowance against the Company's 70% share of River Bend 1 of $1.4 billion on a total company basis. Accordingly, $1.4 billion is found to be imprudent and is disallowed from the rate base. The Company is encouraged to pursue accounting options which would limit the impact of this disallowance on the Company's financial statements.

4) No findings are made at this time respecting the Cajun buy-back arrangement.

5) The Company should continue to defer River Bend 1 revenue requirements on prudently incurred costs, not currently recovered as a result of this Order, for future consideration by this Commission within the general framework of the phase-in plan recommended by the Staff, as outlined in the Report of Special Counsel. The form of the phase-in plan is approved, but the amounts of the rate adjustments in the second and all subsequent years of the phase-in period are not approved. Instead, all phase-in period rate adjustments shall be subject to evidentiary hearings to consider the Company's operations and financial condition, and shall require approval

by a majority vote of the Commission prior to any adjustment. The dynamics of the annual evidentiary hearings shall be worked out between Commission Staff and the Company with proper consideration of the magnitude of the work, the complexity of the issues, and the delays generally accorded in such proceedings.

6) The Commission also directs the Company to make a complete inventory of all its earning and non-earning assets and to identify those properties that can be sold. The purpose would be to use the cash proceeds to reduce its debt.

7) River Bend 2 cancelled investment costs will never be used or useful and should therefore not be recovered from ratepayers.

8) The return on equity should be 12.0%, which is consistent with the FERC benchmark rate of return and the rates of return recently granted by this Commission to other utilities. See attached FERC Bulletin, page 11,377. This results in an overall rate of return to be applied to rate base of 11.30%.

9) The increase shall be allocated among customer classes on the basis of test year kilowatt-hour sales. The Commission adopted this rate allocation methodology in the following recent dockets:

(1) Docket No. 14690—Louisiana Power & Light (LP&L) (October 8, 1980)

(2) Docket No. 14078—Louisiana Power & Light (LP&L) (December 18, 1979)

(3) Docket Nos. 15297 and 15622—Central Louisiana Electric Company (CLECO) (October 18, 1983)

(4) Docket No. 14250—Southwest Electric Power Company (SWEPCO) (May 19, 1980)

(5) Docket No. 14495—Gulf States Utilities Company (GSU) (March 11, 1980)

10) The amount of rate increase granted herein is a net $63.0 million on an annual basis, which reflects the effect of a proportionate share of the River Bend 1 fuel savings.

11) The interim rate increase of $57 million terminates at midnight upon the date of the decision reflected by this order, December 15, 1987.

12) Accordingly, the Commission hereby orders that the Company be permitted to increase its revenues by a net $63 million, after deletion of the interim increase, effective midnight December 15, 1987, and orders the Company to file revised tariff sheets in accordance with this Order.

13) Commissioner Owen dissents in that he would find imprudence at the $1.4 billion level, but would have allowed an inventory program and would have granted the Company a $92 million rate increase.

14) Commissioner Powell dissents in that he would make permanent the $57 million interim increase, employ a cap of 4.6¢ per kilowatt-hour in a sale-back provision under a Rehabilitative Requalification program, and find $1.4 billion to be imprudent, with instructions to the Company to cut expenses.

By Order of the Commission
Baton Rouge, Louisiana
December 15, 1987

/s/ John F. Schwegmann
Chairman

Don Owen, Dissenting
Vice Chairman

/s/ Louis J. Lambert, Jr.
Commissioner

/s/ George J. Ackel
Commissioner

Thomas E. Powell, Dissenting
Commissioner

/s/ [Illegible]
Secretary

APPENDIX H

Report of Special Counsel prepared for the Louisiana Public Service Commission in Docket No. U-17282

(November 19, 1987)

November 19, 1987

Louisiana
Public Service Commission

Report of Special Counsel
(Supersedes Draft Report of November 5)

in the matter of

Gulf States Utilities
Application For
Revision of Electrical Rates

Docket U-17282

Submitted by:

Uddo and Porter

and

Jones and Amos
Attorneys at Law

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1. *South Central Bell Telephone Co. v. La. Public Service Comm.*, 373 So. 2d 478, 480-81 (La. 1979).

2. *Morehouse Natural Gas Co. v. La. Public Service Comm.*, 162 So. 2d 334, 338 (La. 1964).

3. *State of Missouri ex rel. S. W. Bell Telephone Co. v. P.S.C. of Missouri*, 262 U.S. 276, 289 N.1 (1923) (Brandeis and Holmes J. J. concurring).

4. *Federal Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

4a. *Federal Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944).

5. *Acker v. U.S.*, 298 U.S. 426, 430 (1936).

6. *El Paso Natural Gas Co. v. Federal Power Comm.*, 281 F.2d 567, 573 (5th Cir. 1960) cert. denied 366 U.S. 912 (1960).

7. *Municipal Light Boards v. Boston Edison Co.*, Opinion No. 729, 53 FPC 1545 (1975) off'd sub nom. *Towns of Norwood et al. v. F.P.C.*, 546 F.2d 1036 (D.C. Cir. 1976).

8. *Metzenbaum v. Columbia Gas Transmission Corp.*, Opinion No. 25, 4 FERC ¶ 61,277 (1978).

9. *Midwestern Gas Trans. Co.*, 36 FRC 61, 70 (1966), reh. denied, 36 FPC 599, off'd, *Midwestern Gas Trans. Co. v. F.P.C.*, 388 F.2d 444, 448 (7th Cir. 1968), cert. denied, 392 U.S. 928 (1968).

10. *Just and Reasonable Rates for Sales of Natural Gas*, Opinion No. 699-B, 52 FPC 700, 703 (1974) off'd sub nom. *Shell Oil Co. v. F.P.C.*, 520 F.2d 1061 (5th Cir. 1975) reh. denied, 525 F.2d 1261 (5th Cir. 1976), cert. denied, 426 U.S. 941 (1976).

REPORT OF SPECIAL COUNSEL

I. INTRODUCTION: A HISTORICAL PERSPECTIVE OF THE CASE

This Docket involves the application of Gulf States Utilities Company (Gulf States) for an increase in its intrastate rates and charges for electric service in the state of Louisiana. As part of its investigation into the appropriateness of a rate increase, the Commission ordered an investigation into the prudence of the planning, construction and costs associated with the River Bend 1 nuclear generating unit.

Gulf States is an electric public utility organized under the laws of Texas and doing business in both Louisiana and Texas. It provides electric service to approximately 275,000 residential, commercial and industrial customers in twenty of the sixty-four parishes of the state. Gulf States owns 70% of the River Bend 1 nuclear generating facility in St. Francisville, Louisiana. The other 30% of the facility is owned by Cajun Electric Power Cooperative, Inc., River Bend 1 went into commercial operation on June 16, 1986 and began supplying electricity to Gulf States ratepayers.

Interventions in this Docket were filed by the Attorney General of the State of Louisiana, the Gulf States Energy Users Group (GSEUG), the Louisiana Food Store Group (LFSG), Dow Chemical Company and the United States Department of Energy (DOE). All these Intervenors filed testimony and participated in the rate making aspects of this Docket.

The rate filing of the Company in this Docket was made on July 25, 1986. Gulf States' primary purpose in filing its application was to seek inclusion in its rate base of the River Bend 1 unit, which it sought to have declared in commercial operation. The Company had previously filed an application for a retail rate increase to include

River Bend 1 costs (Docket U-16950, filed September 1985). After preliminary public hearing and arguments of counsel in the previous docket, the Commission had bifurcated the case into two separate rate filings, one for Plant-in-Service and the other for River Bend 1. The Commission had ordered the dismissal of that portion of the filing applicable to River Bend 1 as premature, based on the lack of evidence that the unit was in commercial operation. After the filing of the instant case, on August 12, 1986, Gulf States voluntarily withdrew that portion of the previous filing dealing with Plant-in-Service which was still before the Commission.

As a result of the issues which arose in Docket U-16950 regarding the commercial operation of River Bend 1, on August 26, 1986 Gulf States filed a Motion for Declaratory Order requesting a determination by the Commission of the effective date of commercial operation (Docket U-17242). On December 2, 1986 the Commission issued an order setting the effective date of commercial operation of River Bend 1 as June 16, 1986, the date requested by the Company.

Gulf States' application for rate relief in this Docket originally sought a base rate increase of $202 million from its Louisiana retail ratepayers. This requested increase was based on a proposed overall rate of return of 12.6%. Because of the in-service status of River Bend 1 in August 1986, although that status was not yet officially recognized by the Commission, and because of the Company's financial condition, as an adjunct to its rate case on September 8, 1986 Gulf States filed a request for emergency interim rate relief of $100 million. The Commission instructed the Staff to review the application for emergency relief, and witnesses for the Company, Staff and Intervenors filed testimony and were cross-examined at public hearings. After hearings were concluded, on December 2, 1986 the Commission denied the Company's request for emergency interim rate relief. On that same

date, the Commission granted Gulf States an accounting order allowing all River Bend 1 costs to be deferred and capitalized as an asset for future consideration of recovery by the Commission.

In January 1987, Gulf States appealed the denial of its interim request to the 19th Judicial District Court (Docket No. 309,597, "G") resulting in a remand by the Court to the Commission for reconsideration of the interim application. On February 24, 1987, the Commission reconsidered the emergency rate application and granted Gulf States emergency rate relief, permitting the Company to increase its base rates by $57 million on an annualized basis for total Louisiana retail revenues. This was to have no effect on the operation of the fuel adjustment clause. This rate increase was allotted to the customer classes in the same proportion that each class contributed to the non-fuel revenue of Gulf States in the test years. The emergency increase in rates became effective on March 5, 1987, and is due to expire at such date as the Commission renders its final order in this docket. After the interim rate increase became effective, in March 1987 the Company made a revised and supplemental filing, amending the reouested rate increase to $194.3 million.

After the conclusion of that portion of the proceedings concerning the interim rate increase application, public hearings were conducted concerning non-River Bend, River Bend 2 and River Bend 1 revenue requirements, the prudence of the Company's decisions with respect to the River Bend 1 nuclear project, and rate design. These hearings were conducted before the Commission and the Honorable Roy F. Edwards, Hearing Examiner, and witnesses of the Company, Staff and Intervenors were cross-examined. These hearings were conducted on March 30 and 31, April 1, 3, 21, 22, 23 and 24, May 13, 14, 15, 26, 28 and 29, June 15 16, 17, 18, 19, 22, 24 and 25, July 7, 8, 9, 10, 13 and 14, August 5, 6, and 7, September 21, and October 6, 1987.

II. COST OF CAPITAL/RATE OF RETURN

The law is well settled that a regulated electric utility is entitled to an opportunity to earn a reasonable and fair return on its prudent investment on assets that are used and useful, *Bluefield Water Works v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923), M. Farris & R. Sampson, *Public Utilities Regulation, Management and Ownership* (Houghton Mifflin Co. (1973), *South Central Bell Telephone Co. v. La. Public Service Commission*, 373 So. 2d 478 (La. 1979). The company's investment is represented by the rate base or the dollar value of its assets that qualify as prudent as well as used and useful. Funds to finance those assets are derived from common stock, long term debt, and preferred stock. An analysis of GSU's capital structure indicates the following distribution:

Capital Structure Gulf Utilities

Common Equity	40%
Long Term Debt	48%
Preferred Stock	12%
	100%

Common equity, long term debt, and preferred stock each represent some percentage of the total capital and correspondingly each of those sources has an associated cost. Preferred stock and long term debt are basically contractual obligations with known costs. However, the return on equity is not fixed and must be determined by an analysis of available market data. Dr. Jay Kennedy, staff consultant, used a discounted cash flow analysis of similarly situated utilities and a "risk premium" approach to determine a fair return on equity for GSU. Dr. Kennedy's analysis was based on the fact that it was not possible to make a direct calculation of a fair return on equity because GSU suspended both common and preferred dividends some months ago. As a result, both the company witnesses and staff witnesses used similar ap-

proaches to avoid the problems associated with the suspended dividends.

Staff witnesses found that a 14% return on equity is appropriate for GSU in the current case. However, company witness Olson determined a 13 to 13.5% return on equity from his discounted cash flow analysis, but then arbitrarily added another full percentage point to his analysis and made other adjustments to bring his recommended return to 15 to 15.5%. It is the conclusion of the staff that Olson's adjustments were inappropriate since the comparison companies he relied upon already incorporate risk relationships. As a result of analysis, the staff recommendation is incorporated in the overall cost of capital determination as shown below.

Staff Cost of Capital Calculation

	% of total	Cost Rate	Weighted Cost
Common Equity	40%	14.00%	5.60
Long Term Debt	48%	10.78%	5.17
Preferred Stock	12%	11.05%	1.33%
	100%		12.10%

The Staff recommendation indicated in the table of 12.10% compares with the overall company cost of capital recommendation of 12.60%. It is understood that GSU is, at present, a riskier investment when compared to the average electric utility in the United States. That risk was specifically taken into account by the staff by selecting comparison companies that have nuclear units under construction or recently completed. The average capital structure of the comparison companies is similar to GSU's, but the bonds of the comparison companies are all rated Baa/BBB, while GSU's were Ba 3 at the time of the analysis. The lower ranking of the GSU bonds represents the slightly lower risk of the comparison companies. With rate relief GSU bonds should improve in quality somewhat.

In summary, it is the staff position that a return on equity of 14.00% translating to an overall cost of capital of 12.10% should be adopted and applied in connection with the current rate.

III. NON-RIVER BEND ISSUES

NON-RIVER BEND RATE BASE

GSU's "non-River Bend" rate base is $832 million and includes all of GSU's plant investment except River Bend 1 and River Bend 2 (Exhibit G-209 [GMS-5]). GSU represents its non-River Bend rate base to be $831,755,000. Kennedy & Associates recommends three adjustments to this amount, two of which would increase and one of which would reduce rate base, the net effect of which is an $8,040 increase in rate base, such that the recommended non-River Bend rate base is $831,763,040.

The suggested adjustments to non-River Bend rate base include a $383,040 increase to rate base to amortize, over a 10 year period, the $21.7 million insurance proceeds GSU received as a result of a boiler explosion in 1983 at Neches 7 (Exhibit L-96 [LK-6]), a $740,000 decrease in rate base to reflect the average test year unamortized gain on GSU's sale of Blue Hills nuclear fuel (Exhibit L-95 [LK-5]), and a $365,000 increase in rate base to reflect a reduction in Accumulated Deferred Income Taxes due to the use of a 34% federal income tax rate effective July 1, 1987 rather than the 37% blended rate proposed by GSU (Exhibit L-103 [LK-13]). The adjustments recommended by the Staff consultants are appropriate. Incorporating these adjustments, non-River Bend rate base is as follows:

NON-RIVER BEND RATE BASE

Component	Amount ($000)
Electric Plant-In-Service	$1,405,546
Less: Accumulated Depreciation	(457,080)
Net Plant In Rate Base	$ 948,466
Plant Held For Future Use	66,086
Construction Work in Progress	0
Unamortized Plant Losses (net of gains)	2,661
Working Capital Requirements	8,532
Less: Accumulated Deferred Income Taxes	(171,974)
Accumulated Pre-1971 Deferred ITC	(2,234)
Customer Deposits	(9,138)
Deferred Fuel Over/Under Recovery	(1,151)
Other	(9,485)
Total Non-River Bend Avg. Year Rate Base (Exhibit L-94 [LK-4])	$ 831,763

NON-RIVER BEND OPERATING INCOME

According to GSU, non-River Bend operating income for the year ending June 30, 1986, is $90,564,000. Five adjustments recommended by Kennedy & Associates reduce GSU's non-River Bend operating expenses and thereby increase the non-River Bend operating income to $92,483,000, as follows:

NON-RIVER BEND OPERATING INCOME

Component	Amount ($000)
Total Operating Revenues	$612,416
Less: Operating Expenses	
Fuel	171,046
Purchased Power	148,033
Other O & M	59,035
Administrative and General	42,346
Interest on Customer Deposits	537
Payroll and Benefits Proformed	6,158
Depreciation	37,774
Amortization of Losses (Gains)	(1,080)
Amortization of Accounting Orders	0
Taxes Other Than Income	36,877
Total Operating Expenses Before Income Taxes	$500,726
Operating Income Before Income Taxes	$111,690
Less: Income Taxes (La. and Federal)	
Current	(16,633)
Deferred	44,724
ITC	(8,884)
Total Operating Income (Exhibit L-99 [LK-9])	$ 92,483

The adjustments made to the non-River Bend operating income include those discussed above to reflect the 10-year amortization of the $21.7 million insurance proceeds received as a result of the Neches 7 boiler explosion (Exhibit L-96 [LK-6]), and the use of a 34% rather than a 37% federal income tax rate for current and deferred income tax expense (Exhibits L-103 and L-104 [LK-13

and 14]), as well as adjustments to reflect the use of a 5-year rather than a 4-year average of actual experience to reflect an increase in deductibles from $1 million to $5 million, resulting in a reduction in expense accruals for the Storm Damage Reserve (Exhibit L-97 [LK-7]), a reduction in the property tax expense suggested by GSU to reflect the loss of the property tax exemption for Willow Glen 3 and Nelson 4 oil conversion and environmental expenditures for the period of January 1 to June 30, 1988 (one-half a year) (Exhibit L-101 [LK-11]), and a reduction in the level of test year pension expense proposed by GSU to reflect a 5-year amortization of the special charge to expense in 1986 of $8.94 million for GSU's Early Retirement Program. The $8.94 million charge to pension expense was a special one-time expense, rather than a recurring annual expense, and should consequently be amortized over a period of time rather than currently expensed) (Exhibit L-100 [LK-10]).

NON-RIVER BEND REVENUE REQUIREMENTS

Utilizing the adjusted non-River Bend rate base of $831,763,040, the adjusted non-River Bend operating income of $92,483,000, the 12.10% overall rate of return developed by Dr. Kennedy, and the revenue related tax and uncollectable accounts expense adders of 2.2% and .25%, respectively, the required rate increase for non-River Bend rate base is $13.393 million, as follows:

COMPUTATION OF ALLOWED RATE INCREASE
NON-RIVER BEND

Component	Amount ($000)
Rate Base	$831,763
Required Rate of Return	12.10%
Required Operating Income	$100,643
Test Period Operating Income	92,483
Operating Income Deficiency	$ 8,160
Gross Revenue Conversion Factor (Exhibit L-102 [LK-12])	1.6021
Revenue Requirements Deficiency	$ 13,073
Adder for Revenue Related Taxes (2.2%) and for Uncollectable Accounts (.25%)	320
Total Non-River Bend Revenue Deficiency (Exhibit L-92 [LK-2])	$ 13,393

IV. RIVER BEND 2 ISSUES

The River Bend 2 nuclear project was cancelled by GSU in 1984. At that time $50.371 million had been invested in River Bend 2, with subsequent expenditures of $1.8 million for additional cancellation costs and an adjustment for excavation and backfill of $10.043 million, for a total unamortized investment balance of $62.114 million for the Louisiana retail portion.

The Staff, based on Commission precedent in Docket U-14495B on November 17, 1980 concerning the cancelled Blue Hills Nuclear plant, recommends that GSU be allowed a return of (amortization) and a return on (inclusion in rate base) on its unamortized River Bend 2 investment balance.

While GSU proposes it should be allowed to recover its investment in River Bend 2 over a 10-year period, the

Staff finds it appropriate to provide for recovery over 40 years, inasmuch as the investment in a completed nuclear unit (such as River Bend 1) would be recovered over its 40-year estimated service life.

A 40-year amortization of the River Bend 2 cancellation costs results in a test year amortization expense of $1.553 million. (Exhibit L-86 [WD-1]). The concurrent test year amortization to expense of the deferred federal and state tax benefits resulting from the cancellation would be an negative $.496 million. (Exhibit L-87 [WD-2]).

Additionally, GSU should earn a return on the unamortized portion of River Bend 2 costs, net of the unamortized deferred tax balance. Reducing the River Bend 2 unamortized balance as of June 30, 1986 of $62.114 million by one-half the annual amortization expense, $.776 million, and further reducing that rate base by the average balance of unamortized accumulated deferred income taxes of $19.608 million, results in a net average rate base for River Bend 2 of $41.730 million. Applying the 12.10% rate of return developed by Dr. Kennedy yields a return on the unamortized River Bend 2 rate base of $5.049 million. (Exhibit L-88 [WD-3]).

While Kennedy & Associates originally proposed the use of a 37% federal income tax rate for the River Bend 2 revenue requirements, a 34% federal income tax rate is more appropriate inasmuch as the 34% rate has been in effect now since July 1, 1987. Consequently, the revenue requirements for River Bend 2 shown below, reflect the use of the 34% federal income tax rate. The revenue requirement for River Bend 2 is 10.022 million, as follows:

RIVER BEND 2 REVENUE REQUIREMENTS

Component	Amount ($000)
Amortization of River Bend 2 Cancellation Costs	$ 1,553
Amortization of River Bend 2 Deferred Taxes	(496)
Return on Unamortized River Bend 2 Rate Base	5,049
River Bend 2 Operating Income Deficiency	6,106
Gross Revenue Multiplier	1.6021
River Bend 2 Revenue Requirement	$ 9,782
Adder for Revenue Related Taxes (2.2%) and for Uncollectable Accounts (.25%)	240
Total River Bend 2 Revenue Requirement	$10,022

V. RIVER BEND 1 NUCLEAR UNIT

River Bend 1 is a nuclear generating facility located near a bend in the Mississippi River, just south of St. Francisville, Louisiana. River Bend is a boiling water reactor (BWR) with a nominal rating of 940mW. The unit is owned jointly by Gulf States Utilities (70%, or 658mW) and by Cajun Electric Cooperative (30%, or 282mW).

River Bend 1 was constructed by Gulf States Utilities commencing in the early 1970's. In response to dramatically reduced load growth projections and financial deterioration, the unit's site construction was suspended in early 1977. In late summer 1978, studies were performed by GSU to determine whether site construction at River Bend 1 should be resumed. In addition, outside participation in the unit was pursued as well as the sale of unit components and fuel. Surrounding area utilities were contacted to determine their interest in participation. Contacts were also made with highly placed officials in foreign countries including South Korea and Iran.

Informal indications of participation interest were obtained from Cajun Electric Cooperative and Sam Rayburn. Foreign contacts indicated no interest in purchasing the unit, components or fuel.

Rebids for the project were obtained from four engineering/architect firms in the fall of 1978, including Stone and Webster (the original contractor), Brown and Root, Ebasco and Bechtel. These rebids, encompassing scope, cost and schedule duration, were evaluated by the Company in conjunction with Management Analysis Company, resulting in the reselection and continued utilization of Stone and Webster as the general contractor.

In February 1979, the Company's Board of Directors voted to authorize construction spending for 1979 which included reactivation of site construction at River Bend 1. In addition, development of a definitive estimate of the project's cost and schedule duration was commenced by Stone and Webster. In March 1979, the accident at the Three Mile Island nuclear unit occurred, resulting ultimately in substantially increased costs for mandated design and operating requirements changes. Site construction forces were mobilized at River Bend 1 in the summer of 1979. First structural concrete was poured in September 1979. River Bend 1 was the only nuclear unit to commence construction in the United States after the Three Mile Island accident.

Participation in the unit by Cajun did not actually occur until 1981. Participation in the unit by Sam Rayburn or other prospective parties never did occur. As a result, GSU ownership of River Bend 1 increased by an additional 10% (94mW), not contemplated at the time of restart. Major construction was completed by late 1985. By May 1986, the unit completed full-power ascension testing. River Bend 1 was declared in commercial operation on June 16, 1986.

For the first five years of the union's operation, GSU is obligated, as a condition of Cajun's participation, to

buy back decreasing amounts of Cajun's 30% share of the unit's output. This commitment expires in 1991, at which time Cajun will be fully responsible for all costs related to its 30% share.

VI. PRUDENCE OF RIVER BEND 1 RESTART DECISION

STANDARD OF PRUDENCE

Necessity of the Prudence Standard

Utility rates may only reflect prudently incurred costs of providing service. Imprudent, unlawful or unreasonably incurred costs are disqualified from rate recognition. In other words, prudence qualifies costs which are allowed to be reflected in rates. *Acker v. U.S.*, 298 U.S. 426, 430 (1936), *El Paso Natural Gas Co. v. Federal Power Comm.*, 281 F.2d 567, 573 (5th Cir. 1960) cert. denied 366 U.S. 912 (1960).

The prudence standard concerns the decision making process, not just a specific assumption, forecast or study which might have influenced decisions. Decisions must be shown to be the result of a logical process, guided by a reasonable set of considerations, as known at the time. Thus, the mere fact that a reasonable assumption was in place at some time in the past does not imply that there is no limit to the decisions which could flow from that assumption. In making decisions which ultimately affect customer rates, management must exercise a standard of care and professionalism consistent with the significance of the decision as perceived at the time. *Municipal Light Boards v. Boston Edison Co.*, Opinion No. 729, 53 FPC 1545 (1975) off'd sub nom. *Towns of Norwood et al v. F.P.C.*, 546 F.2d 1036 (D.C. Cir. 1976); *Metzenbaum v. Columbia Gas Transmission Corp., Opinion* No. 25, 4 FERC ¶ 61,277 (1978).

The Commission's Role

The Louisiana Public Service Commission is responsible for the establishment of fair and reasonable rates which reflect the prudently incurred costs of property that is used and useful in the provision of utility service. It is therefore incumbent upon the Commission to determine whether an investment, in this case River Bend 1, was prudently conceived and its costs prudently incurred prior to causing ratepayers to pay for that investment. It is the responsibility of the Commission to investigate the issue of prudence.

The Significance of Prudence in Ratemaking

The Louisiana Public Service Commission has repeatedly held that utility rates should only reflect prudently incurred costs of providing service. Imprudent, unlawful, or unreasonably incurred costs are precluded from rate recognition. *State of Missouri ex rel. S. W. Bell Telephone Co. v. P.S.C. of Missouri*, 262 U.S. 276, 289 N. 1 (1923) (Brandeis and Holmes J. J. concurring), *Federal Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 501 (1944). In other words, prudence qualifies costs which are allowed to be reflected in rates. Imprudence disqualifies costs from being reflected in rates. The importance of the prudence standard stems directly from the monopoly status of the utility company. *South Central Bell Telephone Co. v. La. Public Service Comm.*, 373 So. 2d 478, 480-81 (La. 1979), *Morehouse Natural Gas Co. v. La. Public Service Comm.*, 162 So. 2d 334, 338 (La. 1964), *Midwestern Gas Trans. Co.*, 36 FRC 61, 70 (1966), reh. denied, 36 FPC 599, off'd, *Midwestern Gas Trans. Co. v. F.P.C.*, 388 F. 2d 444, 448 (7th Cir. 1968), cert. denied, 391 U.S. 928 (1968). Since ratepayers have only one power supplier, they are dependent on utility management to make reasonable attempts to minimize costs. However, the managers of the utility are responsible to the shareholders and cannot be presumed to automatically put the interests of

ratepayers over those of the investors, *Federal Power Comm. v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944), *Morehouse Natural Gas Co.*, supra.

By only allowing rate recognition of prudently incurred costs, the Commission can protect the interests of customers while fairly compensating the investors. Further, the prudence principle is not symmetric with respect to rewards and penalties. Utilities are expected to be prudently managed and their reward is full cost recovery. However, if they are not prudently managed, then there is a penalty, which is less than full cost recovery.

Practical Application of the Prudence Standard by the Commission

The prudence standard concerns the decision making process. The decision making process includes decision inputs, assumptions, forecasts and studies which might have affected the decisions made by management. The prudence standard addresses the total process. Decisions must be shown to be the result of a logical process, guided by a reasonable set of considerations, encompassing relevant information known or which should have been known at the time. *Municipal Light Boards*, supra, *Metzenbaum*, supra.

A standard of comparison is necessary in order to determine prudence in an after the fact evaluation of a decision process. It is generally agreed that decisions are prudent if they are consistent with the actions of a "reasonable man", possessing the proper qualifications. *Municipal Light Boards*, supra, *Metzenbaum*, supra, *Just and Reasonable Rates for Sales of Natural Gas*, Opinion No. 699-B, 52 FPC 700, 703 (1974), off'd sub nom. *Shell Oil Co. v. F.P.C.*, 520 F. 2d 1061 (5th Cir. 1975) reh. denied, 525 F. 2d 1261 (5th Cir. 1976), cert. denied, 426 U.S. 941 (1976). In the case of GSU and their River Band 1 décision process, the appropriate standard for the "reasonable man" should be competent utility planners,

managers and executives, under the circumstances prevailing at the decision time.

The prudence standard should apply to the overall process due to the cumulative nature of the decision making process. It has been argued that individual assumptions or even decisions may be unreasonable, so long as they don't affect the final outcome of the decision making process. It has also been argued that failure to perform economic studies was not imprudent, so long as reasonable studies would have supported the decision to continue construction of the project. GSU witnesses have testified that use of inappropriate cost estimates for River Bend was not imprudent if the use of correct cost estimates would not have resulted in a different decision. If management was a series of independent, unrelated decisions these arguments might have some merit. However, managment and planning decisions are cumulative. Each new decision is a product of all previous decisions and perceptions. If the overall process of decision making is flawed, it is impossible to distinguish the flawed decisions from the process itself. In the case of a utility such as Gulf States, the reasonable planner will carefully review decisions whenever material factors (i.e. cost estimates or load forecasts) change. In the uncertain environment faced by utility decision makers, it is difficult to make the correct economic decisions, even when the process is sound. Consequently, it is unreasonable to expect that an unsound process will result in an acceptable outcome. The staff prudence investigation properly reviewed the planning process as well as the resulting decisions that gave rise to the construction and completion of the River Bend 1 nuclear unit.

A prudence review is necessarily retrospective because it involves a review of past circumstances, past information available and past decisions. A prudence review requires use of contemporaneous knowledge and data within the context of the circumstances existing at the time crit-

ical decisions were made. A prudence review must not rely on hindsight, whereby past decisions and circumstances are evaluated in light of subsequent knowledge. *Municipal Light Boards*, supra., *Metzenbaum*, supra., *Just and Reasonable Rates*, supra.

The determination of prudence or imprudence is then a determination of reasonableness in the planning process and the decisions that were made given the circumstances at the time with the information that was known or knowable. *Municipal Light Boards*, supra., *Metzenbaum*, supra., *Just and Reasonable Rates*, supra. Prudence is not a function of the ultimate result. An unreasonable planning process and unreasonable decision could result in a good outcome. Likewise, a reasonable planning process and reasonable decision could result in a bad outcome. However, the worst of all possibilities is an unreasonable planning process, an unreasonable decision and a bad result. The result does not in and of itself determine prudence. It is the comparison to the prudence standard that leads to a finding of prudence or imprudence.

PRUDENCE INVESTIGATION

Nature of Investigation

The Staff was directed by the Commission to review and investigate the planning process and decisions of Gulf States Utilities that gave rise to the construction and ultimate completion of River Bend 1.

The Staff investigation was multifacted and included interviews of Company personnel directly involved in the planning and decision processes, a review of contemporaneous Company and external documents, cross examination of Company personnel and ultimately, an independent reconstruction of the Company's planning environment and relevant decision factors.

The initial Staff review found that the Company had acted in a reasonable and prudent manner prior to the

period of late summer 1978. This encompassed the initial River Bend 1 engineering and construction commencing in the early 1970's to the early 1977 time frame when site construction activity was suspended due to lower load growth projections and financial deterioration. By late summer 1978, however, the Company began studies and analyses that resulted in the Board of Directors authorizing the restart of site construction. It is this "restart" decision period that the staff focused on in its prudence investigation.

The Staff prudence investigation was thus directed toward the specific issue of the reasonableness of the River Bend 1 restart decision given the facts that were known or knowable at that time and under the circumstances. To determine the prudence of this decision, the staff consultants performed two concurrent sets of activities. First, a review of the GSU planning activities during this approximate time period. Second, an independent reconstruction of the planning environment at that time in order to establish a reasonable or prudence standard against which to evaluate GSU's planning activities and decision. The following two sections describe each of these concurrent sets of activities comprising the Staff investigation of prudence, the findings of the staff and their conclusions.

Staff Review of GSU Planning Process and Decisions Related to River Bend 1

1. *Scope of Investigation*

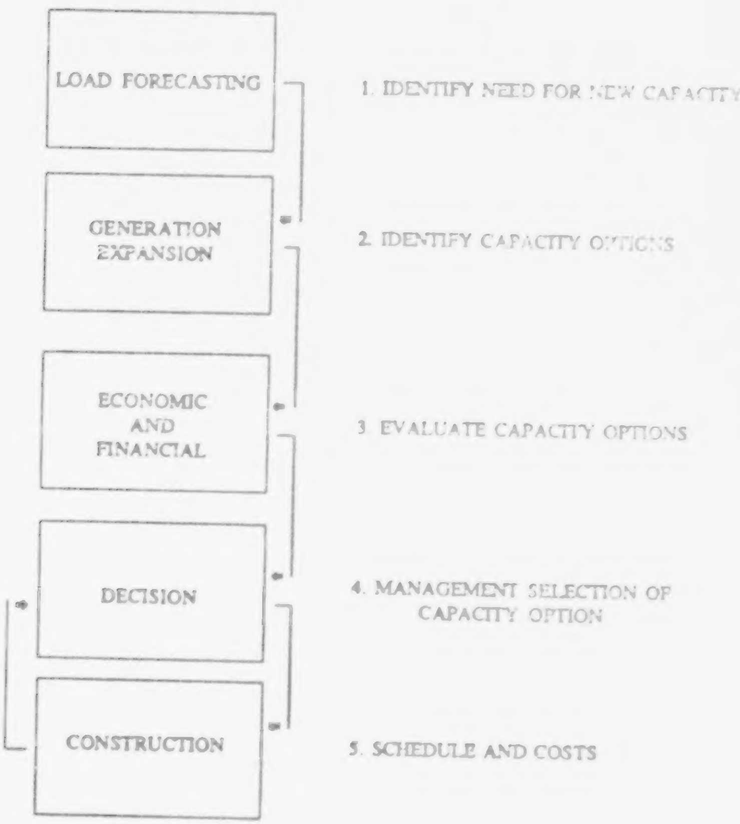
The Commission hired three firms: Kennedy and Associates, O'Brien Kreitzberg & Associates, and Komanoff Energy Associates. All three performed their reviews, prepared testimony and withstood numerous rounds of cross examination and additional testimony.

The investigations centered upon the planning process at GSU. The planning process for choosing among gen-

eration expansion plan options consists of the following major elements:

THE UTILITY PLANNING PROCESS

PRUDENCE INVESTIGATION - REVIEW OF UTILITY PLANNING PROCESS



Kennedy and Associates reviewed the load forecasting process, the generation expansion plan options and the financial and economic evaluation leading to the River Bend 1 restart decision. O'Brien Kreitzberg reviewed the construction and schedule components of the planning process. Komanoff did not participate in this phase of the investigation. This aspect of the investigation consisted of:

1) Review of relevant GSU planning documents, materials, models, correspondence, workpapers, assumptions and data.

2) Extensive interviews of Company personnel involved in the planning process in all relevant areas.

3) Review of external planning documents, economic, political and financial environments, outside participation arrangements and availability of alternative generation options.

4) Cross examination of Company witnesses, some of whom were directly involved in the planning process and the decision to restart, others who had no involvement at the time but who had been engaged by the Company to retrospectively review selected facets of the Company's decision to restart.

2. *Findings*

a. Load Forecasting

The issue of load forecasting is significant in a utility's planning process because it indicates a need or lack thereof for additional capacity. A utility attempts to time the completion of new generating capacity to correspond with its need as evidenced by its peak load forecast. Peak load forecasting is, therefore, a critical element, and indeed one of the primary determinants of the need for new generation in the planning process.

Kennedy and Associates reviewed the load forecasting methods utilized by Gulf States Utilities during the restart (summer 1978 to early 1979) time frame. Specifically, their findings were based upon reviews of documentation provided by GSU as well as interviews with individuals who directly performed or reviewed the forecasts, up to the highest levels in the Company.

During 1972-1976, GSU peak load growth grew at an annual rate of approximately 3.56%. For 1977 and 1978, peak demand grew at 11.9% and 10.3% respectively. Kennedy and Associates determined that the load growth during 1977 and 1978 significantly influenced the Company's expectations regarding future peak demand growth on the system and contributed significantly to the decision to restart River Bend 1. Thus, it was imperative to examine the reasonableness of the Company's projections and determine whether the Company's approach could have been expected to yield reasonable results.

The Company prepared a special peak demand forecast in the summer of 1978. This was a critical forecast for the River Bend 1 restart decision, and assumed a peak demand growth of approximately 5.4% for the six years 1978 through 1984. However, after adjusting for the loss of some cooperative load (200 mW), the expected peak demand growth from this 1978 period was actually closer to 5.9%. This forecast resulted in an additional 871 mW of peak load projected by 1985 when compared to the Company's previous forecast.

Kennedy and Associates found that GSU's peak load forecasting methodology was less than state of the art for the electric utility industry at the time of the restart analysis and decision. In fact, the review indicated that the GSU peak load forecasting process contained a significant number of flaws. On of these flaws was the fact that the Company produced a peak demand forecast for only six years into the future. The 1978 forecast, which was prepared following the 1978 GSU system peak, ran until the 1984 system peak which was one year prior to the projected commercial operation date of River Bend 1. Thus, the critical period for evaluating the economics of River Bend 1 was not even included in GSU's peak demand forecast. In effect, the Company projected load to one year prior to River Bend 1 commercial operation. They had no knowledge of peak demand beyond that date.

To achieve peak load projections beyond the sixth year, the average growth of the six year period was merely extrapolated, which ignored significant changes in growth from:

—Price elasticity effects (the dampening of demand due to higher prices)

—New customers (not yet located on the system)

—Existing customers (assumed near term growth *projected by customers* would continue indefinitely).

Thus, it was not possible for GSU to achieve a reasonable peak load forecast utilizing their methodologies at that time. GSU itself recognized that the ability of the Company to produce reasonable and accurate load and energy forecasts was lacking and needed to be improved to at least the level of other electric utilities in the United States. This was suggested by a working group of the Strategic Planning Committee. GSU prepared documents (1979) which recommended a complete evaluation of the forecasting process at GSU. Further, during this time frame, the peak demand forecast was prepared by a company transmission planning engineer. Preparation of peak load forecasts by the transmission planning department is not and was not the common practice of electric utilities in the United States during the late 1979's time period. This was unusual and outside of the mainstream.

b. Generation Expansion

Once a need for additional generation capacity is identified, the planning process should identify workable options to supply that requirement. These options are initially screened based upon numerous criteria, including cost and fuel availability, among others. The generation expansion options identified by Gulf States Utilities during the summer 1978 to early 1979 restart time frame include:

1. *Complete* River Bend 1 as nuclear

2. *Cancel River Bend 1*, replace *with multiple smaller scrubbed coal units*

3. *Cancel* River Bend 1, advance *Nelson 5 coal*

4. Cancel River Bend 1, *replace* with *scrubbed lignite coal.*

Gulf States assumed in the small coal units study that the fuel sourcing, permitting, siting and construction could be completed for these units in less than six years. The third study assumed that the Nelson 5 unscrubbed coal unit could be brought on line within 6 years by December 1982. We find that arguments offered by Company witnesses denigrating GSU's own assumptions at that time were based upon hindsight and the availability of subsequent knowledge. The assumptions utilized in these GSU restart period studies were obviously indicative of beliefs incorporated by Company management in their own planning process at the time of the restart.

c. Economic and Financial Evaluation

Once workable capacity options have been identified, they are compared through economic analyses to determine the least cost alternative. The least cost alternative is then selected unless other financial constraints are identified. Fuel availability, fuel diversity, construction, scheduling, and other constraints would have been resolved prior to this point. Mr. Norman R. Lee, President of GSU during this decision period, unequivocally stated that GSU pursued a least cost strategy to select its generating options from among those passing muster to that point.

The least cost option would therefore be considered to be the reasonable selection absent any financing constraints. To determine the least cost option, utilities uti-

lize a variety of economic analysis tools which properly account for the relationship between fuel costs, capital costs, operating characteristics and financing costs. The standard and most simple technique, employed by utility planners for decades, is to determine a levelized busbar cost for each option, the lowest being the most attractive. GSU also utilized this technique, although incorrectly in every instance which was documented. The errors were multifaceted:

1) Knowingly understating the capital costs of River Bend 1. "Official" cost estimates were utilized rather than expected higher costs. This made the River Bend 1 option more attractive when compared to other options.

2) Not including the costs of carrying charges paid by ratepayers during construction in the analyses. This understated capital costs of all options, but more so on the River Bend 1 option due to its significantly higher relative cost.

3) Utilizing fixed charge rates (cost of money plus depreciation) that were substantially understated according to their own internal documents. This item substantially understated the capital cost portion of the levelized busbar costs, but more so on the River Bend 1 option due to its significantly higher relative cost.

4) Incorrectly utilizing standard levelized busbar cost and other economic evaluation tools by not properly levelizing all components of the busbar cost or otherwise utilizing current year dollars for comparison.

5) Failing to evaluate uncertainty by varying assumptions. Prior to the restart period, this had been a routine activity performed by the Company and its consultants.

Other economic evaluation techniques, although sparingly utilized by the Company, were similarly flawed both in data and in methodological application.

The Company also performed financial analyses of selected options in the summer of 1978 entitled the "River Bend 1 Restart Package". This package of studies was reviewed in Beaumont in early August 1978 by senior GSU management and members of the Board of Directors. These studies incorporated the effects of their recent special load forecast discussed previously. They were key studies leading to the reactivation of River Bend 1 site construction. Unfortunately, the corporate model contained numerous programming errors and deficiencies which were later identified by Coopers and Lybrand, the Company's auditors. The effects of cancelling River Bend 1 were incorrectly modelled in the cancellation studies included in this restart study package. In addition, the cost of River Bend 1 was significantly understated compared to cost estimates which had been solicited and recognized as reasonable by management.

d. Construction and Scheduling

O'Brien Kreitzberg reviewed the construction and scheduling of River Bend 1 from the perspective of the restart period. They found that the costs of River Bend 1 were understated due to the exclusion of any cost or schedule contingencies and due to nonrecognition of Three Mile Island events which occurred in March 1979. They found that the construction schedule was overly optimistic for the projected cost.

3. *Conclusions*

The Staff concludes, based upon their findings, that the load forecasting process employed by GSU during the restart period was unreasonable and could not be expected to produce the reliable and accurate results necessary to support the need for additional generating capacity.

The Staff further concludes that the economic and financial evaluation portion of the planning process necessary for the proper selection of generating unit options, was flawed to the point where it simply could not provide a reasonable or reliable determination of the least cost option.

Independent Staff Investigation

1. *Necessity of Independent Staff Investigation*

The Staff review of the Gulf States Utilities planning process concluded that their planning process at the time of restart was unreasonable and imprudent and could not have resulted in a prudent decision. However, as indicated earlier in this report, the decision may still have been the right one, given the facts known or knowable within the context of the circumstances. It was therefore necessary for the staff consultants to independently reconstruct a prudent planning process within the context of the late 1978 to early 1979 restart decision period to determine if the decision to restart River Bend 1 was reasonable despite the company's deficient planning process. Kennedy and Associates prepared a peak load forecast based upon econometric techniques utilized by most mainstream electric utilities during the restart period. Similar techniques were adopted by GSU subsequent to the restart decision. Kennedy and Associates also performed extensive analyses of a lignite option in comparison to the restart and completion of River Bend 1. Komanoff Energy Associates performed extensive analyses of advancing the completion date of the Nelson #5 unscrubbed coal unit as an alternative to the restart and completion of River Bend 1.

2. *Findings*

a. Load Forecasting

Kennedy and Associates, utilizing its experience in preparing load forecasts for utilities during the restart deci-

sion time frame, developed an independent peak demand forecast. The model was developed from the perspective of the 1978 time frame utilizing data and methodologies commonly available and widely utilized by utilities during this period. Their approach was to develop a reasonable, though by no means "state of the art", method which could easily have been utilized by GSU in the 1978 period.

The results of their forecast projected a compound average growth rate for the period 1978 through 1985 of 3.7%, which was significantly lower than the Company's special 1978 projection of 5.9% growth. It was, however, very close to the growth rate from the Company's previous "official" load forecast which was superseded by the special 1978 projection. The difference between the Staff's independent peak load forecast and the Company's special projection for 1985, the projected in-service year for River Bend 1 was 850 mW. This 850 mW load difference is greater than GSU's share of the River Bend 1 unit.

b. Generation Expansion

The Staff's independent investigation identified two primary replacement options for River Bend 1 as alternatives to restart. Kennedy and Associates reviewed the "cancel River Bend 1 and replace with a scrubbed lignite unit" option. Komanoff Energy Associates reviewed the "cancel River Bend 1 and replace with Nelson 5" option. This latter option involved the acceleration of the construction and in-service date of a future unscrubbed coal unit by GSU.

The Staff and Company each presented expert witnesses on the issues of lignite availability and projected lignite fuel costs from the 1978 perspective. There was also testimony on the issue of construction time requirements necessary to complete siting, permitting and construction of a lignite or coal unit from the perspective of the restart decision period.

Based upon a review of the evidence presented, the Staff finds that lignite was a viable alternative for the Company to River Bend 1. Adequate lignite resources were identified by Staff witnesses and in a 1975 study prepared for GSU. Lignite reserves were available in the northwest parishes of Louisiana and east central regions of Texas, within and in close proximity to the GSU service territory. This is certain and is not disputed by the Company. There is more uncertainty with respect to the perspective on projected lignite fuel costs. However, the Staff economic and financial evaluation specifically dealt with this issue and the inherent uncertainty. The issue of lead times necessary for the siting, permitting and construction of lignite or coal units must be considered within the context of prevailing knowledge at the time of restart, not in light of subsequent knowledge. The Company assumed at the time of its restart decision analyses that it could have lignite or coal units in commercial operation by 1984 even though permitting or siting activities had not yet been initiated for those units. Staff urges that this evidence carries substantially more weight than the Company's witnesses who now find, in hindsight, based upon actual information available in years subsequent to the restart decision, that lignite units have actually taken seven to nine years to site, permit and complete.

The Company does not dispute that acceleration of the Nelson 5 coal unit was an option to completion of River Bend 1, however, they believed that both were necessary.

Consequently, the Staff finds that both the lignite option and the Nelson 5 acceleration option were both viable options. However, the reasonableness of these options compared to completion of River Bend 1 must be judged in light of information which was available at the time of the restart decision.

c. Economic and Financial Analyses

Given that GSU's assumptions and planning process at the time of the restart decision were shown to be unreasonable, the Staff consultants undertook to recreate the planning environment as a framework for re-evaluating GSU's decision to restart the River Bend project. Kennedy and Associates undertook the task with the knowledge of the difficulty of determining precisely what assumptions might have been made by the reasonable man at the time. The 1978-1979 time frame was characterized by uncertainty. Reasonable analysts could differ with respect to their forecasts of the future. The Kennedy and Associates approach was to develop a reasonably broad range of assumptions from which to base their analysis of River Bend's economic viability.

Kennedy and Associates utilized a Risk Analysis Model developed in 1973-1974 by Dr. Gerald Theusen of the Georgia Institute of Technology. The model was developed specifically for the economic analysis of nuclear versus fossil power plants. The benefit of the model was that it allowed one to evaluate ranges of economic assumptions rather than point estimates. In essence, the model rapidly performed a broad range of levelized busbar cost studies, one of the industry's standard least-cost evaluation techniques, and provided a distribution of the levelized costs of generating unit alternatives to enable comparison. The model then simply tabulated the results of the numerous scenarios and determined the best economic choice under the wide range of assumptions, reflecting the uncertainty facing the utility planner at that time.

As noted earlier, Kennedy and Associates, after analyzing available alternatives within the context of GSU planning requirements and existing legislation including the Fuel Use Act and Clean Air Act, determined that a lignite fueled fossil unit would be the most likely alternative to the restart of River Bend 1. Consequently, this

phase of the Staff's independent investigation focused upon the lignite versus the restart River Bend 1 option.

Kennedy and Associates utilized company documents as well as contemporaneous industry data and statistical regression techniques to develop the broad ranges of key inputs to the risk analysis model. These inputs included fuel costs, capital costs, capacity factors, heat rates, O&M expenses, as well as other costs such as additional transmission requirements and key economic and financial assumptions such as future inflation, discount rates and fixed charge rates. The Staff's analysis also incorporated complete recovery, including rate base treatment, of the River Bend 1 investment to that date plus additional termination costs.

The results of the risk analysis model indicated that a reasonable man, employing known economic assumptions and levelized busbar cost techniques, would have expected a lignite unit to cost much less to own and operate than a nuclear plant. The levelized expected annual cost of the lignite unit was $484 million compared to $548 million for River Bend, an annual difference of $64 million. The risk analysis model revealed that under virtually every possible combination of reasonable assumptions, the lignite unit was the lower cost option. The results of the Kennedy and Associates analysis indicate that had GSU planners employed reasonable methods and assumptions in their analyses, they would have cancelled River Bend in 1979 and replaced it with a lignite unit. Even the best possible outcome for River Bend was neutral with respect to the lignite alternative. To exacerbate the unattractiveness of River Bend, the TMI accident occurred in March of 1979. Any hesitation to cancel River Bend should have disappeared, as a reasonable man would have recognized the economic uncertainty cast upon the nuclear option as a result of the accident. Because of a lack of proper analysis and the use of understated cost estimates, GSU mistakenly opted to complete River Bend.

VII. DISALLOWANCE RELATED TO IMPRUDENCE OF RIVER BEND 1 RESTART

FINDING OF MANAGEMENT IMPRUDENCE

The Staff's analysis indicates that Gulf States Utilities management decision to restart the River Bend 1 nuclear project in the 1979 time frame was imprudent. GSU did not perform reasonable economic analyses as the basis for their restart decision. Kennedy and Associates has shown that a reasonable economic analysis performed in the 1979 time frame would have led GSU management to conclude that cancellation of River Bend 1 with replacement by a lignite unit was the more reasonable and appropriate choice to meet its long term generation requirements. The result of GSU's imprudent decision making was the continuation of the project with a final completion cost approximating $4.5 billion. Economic damages result from GSU's management imprudence with regard to River Bend 1. Ratepayers should not bear the cost of GSU management imprudence.

DESCRIPTION OF ECONOMIC DAMAGES

Cancellation of River Bend 1 at the time of the restart decision and replacement with a lignite unit would have resulted in substantially lower costs to ratepayers today. The damages resulting from imprudently completing River Bend 1 can be calculated in two parts:

1. The difference between the current cost of River Bend 1 and the cost of a lignite unit completed in 1985 (including the cost of additional transmission facilities).

2. A credit for the sunk cost associated with cancelling River Bend 1 in January, 1979 (including cancellation charges).

It is reasonable to assume that the Company should have included the costs of sunk investment and cancella-

tion charges in weighing the appropriateness of cancelling River Bend 1 in 1979 and alternatively constructing a lignite unit. Thus, it is appropriate to factor these costs in the calculation of economic damages.

To summarize, the economic damage of GSU's imprudent planning process and decision to restart the River Bend 1 nuclear project is equal to the difference between the completed cost of River Bend 1 and the cost of a comparably sized lignite unit and additional transmission facilities plus sunk investment and cancellation charges.

CALCULATION OF ECONOMIC DAMAGES

The Staff has determined that the economic damages resulting from GSU management imprudence with respect to the River Bend 1 nuclear project are $1.4 billion on a total company basis.

The damages (disallowance for GSU's 70% share of River Bend 1) actually exceed the $1.4 billion level. The reason for this is that the $1.4 billion only covers GSU's "owned" portion of River Bend 1 but does not include the imprudent portion of the Cajun buybacks. The imprudent portion of the Cajun buybacks is that amount of the charges from Cajun to GSU which covers the disallowed portion of River Bend 1. Since Cajun bases its pricing of the buybacks to GSU on the actual cost of River Bend 1, that cost would be reduced by the amount of the disallowance. Effectively, the disallowance on a total River Bend Unit 1 basis (both Cajun's share and GSU's share) would be the $1.4 billion adjusted to reflect 100% of the plant. The disallowance on this basis would be $2.0 billion. Mitigating considerations are set forth in the next section.

To derive the level of damages, Kennedy and Associates determined that the cost of a hypothetical 658 mW lignite plant (GSU's share of River Bend 1) completed at the same time as River Bend 1 would have been approxi-

mately $816 million. This figure is based upon the cost of Houston Lighting and Power Company's Limestone 1 lignite facility which went into commercial operation in 1985. The actual 1985 completion cost on a $ kW basis was escalated to a 1986 cost to assure comparability with River Bend 1, which was completed in 1986. As such, this cost represents a fair and reasonable estimate to construct a lignite unit within the same geographic region as GSU. In addition to the direct cost of the lignite unit, Kennedy and Associates added approximately $100 million for additional transmission facilities. Thus, Kennedy and Associates estimates that the cost of a lignite plant plus an allowance for transmission facilities with a 1986 in-service date is $916 million. To the cost of this hypothetical lignite unit Kennedy and Associates has added River Bend 1 sunk costs plus termination costs. The basis for sunk costs were direct construction costs of $302.5 million plus AFUDC of $42.1 million as of the hypothetical January 1, 1979 cancellation date. Additionally, costs of terminating the project were set at $150 million. Total cancellation costs would then equal $496.4 million. However, the cancellation of River Bend 1 would have resulted in a tax write-off. Thus, it is necessary to adjust cancellation costs to reflect the tax write-off as of a 1979 cancellation date. A composite 1979 State and Federal tax rate of 48.42 percent results in a tax savings of $219.1 million. Consequently, the net, after tax sunk cost is $275.5 million (as of 1979). This amount is escalated to 1987 at an estimated cost of capital of 9.5 percent, resulting in an escalated cancellation cost of $569 million. This sunk cost is added to the cost of the lignite unit in deriving the economic damage estimate.

An additional cost arises from the tax preferences between nuclear and coal units. Nuclear units have a ten year tax life compared to fifteen years for coal units. This tax life difference results in greater tax benefits associated with the nuclear unit. The result is to increase

the comparison cost of the lignite unit by $40 million. Total equivalent cost of the lignite unit, then is computed to be $1.53 billion or $2319/kW. This cost results from an actual lignite cost of $1241/kW plus additions of $1078/kW.

River Bend 1 costs are from GSU's rate filing in Docket No. U-17282. These costs are shown to be $2.93 billion (the Company's share of River Bend 1), or $4448/kW. The difference between these River Bend 1 costs and the total equivalent cost of the replacement lignite unit ($2319/kW) represents the economic damage of GSU management imprudence. The total dollar figure of damages is $2129/kW or approximaely $1.4 billion on a total company basis. This is equivalent to approximately 48% of the Company's share of the total cost of the unit.

TREATMENT OF IMPRUDENT COSTS MITIGATING CIRCUMSTANCES

Damages from GSU management imprudence have been shown to be $1.4 billion. Ratepayers should not pay for imprudently incurred costs. However, this amount represents a substantial portion of GSU's total equity capitalization. The Company's financial viability should be considered in setting the actual level of disallowance.

Mr. Kollen presents evidence that a $1.4 billion disallowance would result in a 54% reduction in GSU's equity capitalization and an 56% reduction in future earnings available to common equity. A $1.4 billion disallowance would eliminate all of GSU's retained earnings and $397 million of paid in capital. A $1.2 billion disallowance would result in 46% reduction in equity capitalization and a 52% reduction in earnings.

The actual level of disallowance must consider the impact on the Company's continued financial viability: in effect, its ability to remain in operation. The prudence

disallowance should reflect, to the extent practicable, the full amount of the damages ($1.4 billion). To fully develop the specific amount of the disallowance it is necessary to consider all aspects in the revenue requirements phase of the case-in-chief.

VIII. PHASE-IN PLAN

The approach employed in developing the phase-in-plan was a deferral mechanism based upon phasing in the overall revenue requirements associated with River Bend. This compares with a stepped increase in only the plant-in-service in rate base component of the revenue requirement utilized by some other regulatory commissions. In effect, there is a computation of the revenue requirements associated with the River Bend 1 return and expenses, employing a deferral mechanism, which reduces rate shock. The actual revenue requirement associated with River Bend 1, as used in this analysis, is premised on the full rate base treatment of prudently incurred costs of River Bend 1, which, based on the recommended disallowances, would amount to $706 million. Once the revenue requirements have been computed for each year, a certain amount of the costs are deferred for future rate recovery. It should be understood that one of the features of the phase-in-plan proposed is a concurrent return on the average cumulative balance of deferred revenue requirements. This is an approach utilized by both the Staff and the Company which in effect provides for current recovery of the carrying charges necessary to finance the phase-in amounts. The structure of the proposed phase-in-plan as shown in the figure below is illustrative insofar as form. The actual amounts of rate increases and deferrals will be subject to evidentiary hearings to be conducted on an annual basis.

RIVER BEND 1 ONLY PHASE IN PLANS

ANNUAL RATE INCREASES

	Company	LPSC Staff
Year 1	$155	$77
Year 2	127	50
Year 3	78	50
Year 4	0	50
Year 5	0	50
Year 6	0	22
Year 7-10	0	0

As has been previously stated, a full analysis of the financial condition and viability of Gulf States Utilities has been conducted by Kennedy and Associates on behalf of the staff. Based on these analyses and incorporating the $1.4 billion total company disallowance previously set forth, it has been determined that the financial impact of such a disallowance on both "return of" and "return on" River Bend 1 is appropriate and would allow for the continuing existence of GSU as a viable company. For the Louisiana retail jurisdiction this disallowance would amount to $677 million for River Bend 1 plant. The balance, $706 million of plant-in-service should be phased in over a 10-year period. Under the Staff's proposed 10-year phase-in plan River Bend 1 costs would be deferred on a declining basis for a period of 4 years. Following this 4-year deferral, the deferred revenue requirements would then be amortized and recovered over the remaining 6 years of the phase-in period. At the end of the 10th year the full recovery of all deferred costs will have occurred and rates should be at the same level as if no phase-in had ever occurred.

It should be emphasized once again that this proposal for rate recovery only focuses on the first year of the 10-year phase-in. The results of the subsequent 9 years

of the phase-in are shown only to present the structure of the phase-in. The actual amount of future rate recovery associated with the phase-in plan would depend on the specific rate filings presented by GSU in each year of the recovery period. This is ostensibly due to the occurrence of events such as changes in taxes, cost of capital, and River Bend operation and maintenance expenses. Rate increases intended to meet the amortization schedule will be subject to evidentiary hearings prior to the implementation of such rate increases. It is recommended that such hearings be held on an expedited basis in order that the rate increases in each step of the phase-in plan can be placed into effect as close as possible to the anniversary dates of prior rate adjustments. It should be pointed out that the recoveries under this plan must be completed within 10 years as set forth in SFAS 92, or else it will be necessary for the company to write off a portion of the investment will not be recovered within that mandated time frame.

FIRST YEAR RATE INCREASE
$ MILLION

	Company	L.P.S.C. Staff
First Year Revenue Increase	$195	$ 92
Non-Fuel Base Revenues:		
Non-River Bend	24	13
River Bend 2	16	10
River Bend 1	155	77
Shift to Base Revenues from Fuel	6	6
Total Non-Fuel Base Revenue Increase	$201	$106
Fuel Revenues:		
River Bend 1 Fuel Savings		(8)
Shift of Demand Charges From Fuel to Base	(6)	(6)
Total Fuel Revenue Increase	$ (6)	$(14)

One of the last witnesses to testify in this matter, Mr. Herb Stein, representing Gulf States Utilities, set forth the provisions of the recently amended Financial Accounting Standard No. 92, "Regulated Enterprises-Accounting for Phase-In Plans". According to SFAS 92, phase-in plans may not exceed 10 years in duration and all succeeding rate adjustments after the initial year must be no greater than the prior year. The staff has taken SFAS 92 into consideration and urges the Commission to adhere to this standard in the adoption and establishment of the proposed phase-in plan. For purposes of deferrals within the context of the phase-in plan, SFAS 92 has eliminated any consideration of deferrals beyond 10 years.

The allowable deferrals of River Bend related expenses and accrual of carrying charges on the plant, on the date of commercial operation of the unit (June 16, 1986) to the effective date of this rate order, should be amortized through charges to FERC Account 406, on a straight line basis, over the life of the phase-in plan beginning with the effective date of the Commission's rate order. The unamortized balance of such deferrals of expense and accruals of carrying charges shall be included in the company's rate base throughout the phase-in. The following figure shows the deferrals and the amortization as proposed in the staff's phase-in plan:

Staff Phase-In Proposal
$000

	Annual Deferral (Amortization)	Year End Cumulative Deferral
Year 1	$229,000	$229,000
Year 2	166,000	395,000
Year 3	102,000	497,000
Year 4	40,000	537,000
Year 5	(39,000)	498,000
Year 6	(76,000)	422,000
Year 7	(89,000)	333,000
Year 8	(104,000)	229,000
Year 9	(123,000)	106,000
Year 10	(106,000)	0

In this phase-in plan certain revenues would be deferred over the course of the plan achieving an avoidance of rate shock in the first year of the proposed rate increase. The phase-in plan presents a structure for future rate recovery of River Bend 1 costs and deferred costs. The plan is not one which would have the Commission authorize or impose any future rate recovery for River Bend 1 or its costs. It does, however, establish the framework for the phase-in which would require the company in subsequent years to make evidentiary showings in order to change rates.

The phase-in plan as set forth herein is premised on the assumption of a constant expense level for River Bend 1 costs. Obviously, the cost of capital may change over time which would have an impact on the specific rates which the company would request even under the phase-in plan. Therefore, the proposed phase-in plan should serve as an illustrative structure and guide as well as an established regime as required under current financial and accounting standards, but the numbers may vary year to year.

The Commission is urged to utilize all means available to moderate rate shock which would be brought about under traditional rate making for the inclusion of the allowable portion of River Bend 1. Based on analysis and testimony the phase-in plan proposed herein offers a reasonable and fair approach to inclusion of prudently incurred costs of River Bend 1 in rate base.

IX. RATE DESIGN ISSUES

COST ALLOCATION METHODOLOGY

In this case, the Company has proposed to use the Average and Excess cost allocation methodology to allocate production and transmission costs among customer classes. Both the Department of Energy and the Gulf States Energy Users Group have argued that use of the Three Coincident Peak methodology is more appropriate.

A coincident peak methodology allocates the joint costs of production and bulk transmission based on a class's demand at the time of the system peak. The Average and Excess methodology, on the other hand, allocates a portion of the costs based on the class's average annual demand, and then allocates the remaining costs, the "excess", based on the classes' non-coincident peak demand.

It is the position of the Staff that the Company's use of the Average and Excess cost allocation methodology should be accepted. This methodology implicitly recognizes that capacity is built not just to meet peak demand, but also to meet additional needs such as fuel diversity and capacity for planned (and unplanned) outages. Compared to methodologies based solely on peak demand, the average and excess methodology favors lower load factor customers. Additionally, use of this methodology by GSU is consistent with what this Commission has approved in the past.

FUEL ADJUSTMENT CLAUSE

Currently GSU flows through to customers fuel and purchase power costs in excess of those already in base rates via the Fuel Adjustment Clause (FAC). (Southern Company capacity charges are excluded pursuant to Order U-17378.) Base rates include fuel costs of 7.70 mills/kwh for industrial customers and 2.26 mills/kwh for all other customers, as well as $30,236,895 in purchased power costs.

The Company has proposed to collect all currently known purchase power fixed costs (excluding Southern Company) in base rates, with deviations in non-CEPCO costs being reflected in the FAC. This means that the fixed purchased power base rate costs will increase from the current $30,236,895 to $44,402,324 on a company-wide basis, plus $147,061,000, for capacity costs associated with the Cajun buyback. The latter costs had not previously been collected through the FAC or base rates since they had not been incurred prior to June, 1986. The Company also proposes to continue to collect approximately $1,244,839 annually in energy costs for the Cajun buyback through the FAC.

The staff accepts the changes proposed by GSU with respect to the Fuel Adjustment Clause, as they are consistent with current practice and past Commission Orders. Fuel clause revenues will decrease by slightly more than $15 million annually, of which approximately $6.8 million reflects the removal of known purchase power capacity costs from the fuel clause calculations. The remaining $8.2 million reflects fuel savings.

REVENUE ALLOCATION

GSU has proposed to allocate an increase in base rates in the following manner: 32.32% to residentials; 29.89% to general service; 36.17% to industrials; and the remaining 1.61% to municipal water pumping and street

lighting. As shown in the testimony of the Staff, this allocation is very similar to an allocation based on total revenues.

Both Mr. Brubaker, the Gulf States Energy Group witness, and Dr. Goins, the Department of Energy witness, demonstrated in their testimonies that at current rates industrial customers are subsidizing residential customers, even when the Average and Excess methodology is used to allocate costs among customer classes. Both witnesses, as well as the Staff witness, testified that the revenue allocation proposed by GSU would exacerbate the subsidy problem. Dr. Goins recommended that the rate increase be allocated such that each class's subsidy would be no more than plus or minus 10%, subject to: 1) no class receiving an increase greater than 40% nor less than zero; 2) for classes that pay subsidies, deviations from cost of service being equal on a percentage basis; and 3) each class's relative rate of return moving closer to the aggregate rate of return.

Mr. Brubaker recommended instead that the rate increase be allocated so as to reduce interclass subsidies by 50%. Alternatively, Mr. Brubaker indicated that to maintain the status quo with respect to interclass rate relationships, a uniform percent increase over non-fuel revenues should be imposed.

Dr. Rochford, the Staff witness, recommended that the rate increase be spread among customer classes in the proportions she developed based on the testimony of the Department of Energy witness, which would move toward the elimination of interclass subsidies, but at a very gradual rate.

It is concluded that this is the appropriate approach and that the rate increase be allocated in the following percentages; 40.70% to residentials, 30.21% to commercial customers, 27.37% to industrial and the remaining to street lighting and water pumping.

TARIFF STRUCTURE ISSUES

The Company has proposed a number of specific tariff changes, some of which have been addressed by intervenors. Intervenors have also proposed changes in GSU's rate design.

The proposals that have generated controversy concern the elimination of the summer winter differential, the "tilt" in the general services tariffs, the Interruptible Service tariff, the facilities charge, the perpetual ratchet and the Employment and Economic Development Rider. These will be addressed below. The other tariff structure changes proposed by GSU are accepted without comment.

Currently GSU's summer rates are higher than their winter rates. The justification behind a higher summer charge is that GSU is a summer peaking system. GSU has proposed to eliminate the summer winter differential in all tariffs, except in the time-of-day tariffs and in the residential tariff, where a 2.5¢ kwh discount is proposed for winter usage in excess of 1,000 kwh's. According to GSU's witness, Mr. Thornton, the purpose of eliminating the differential is to "levelize the customers' monthly bills and to promote a better understanding of the rates by customers". The Gulf States Energy Users Group has objected to the elimination of the summer winter differential in the industrial rates on the grounds that GSU is a summer peaking system, and therefore charges ought to reflect this. However, GSU's proposal is consistent with the tariffs of other Louisiana utilities and elimination of the differential is appropriate at this time.

With respect to the general service, or commercial, tariffs, the Louisiana Food Store Group is concerned with the relationship between demand and energy costs vis-a-vis their associated charges. Specifically, the testimony of the LFSG witness, Mr. Stanley, shows that under GSU's proposed General Service rates only 34.48% of

demand costs will be collected through demand charges, the remainder through energy charges. In comparison, for the Large General Service class, 61.88% of the demand costs will be collected through the demand charge under GSU's proposed rates, while for the industrial classes the corresponding percentages are 98 to 100%. The LFSG is concerned about this inconsistency between the demand cost and the demand charge in the General Service schedule because it results in high load factor customers (such as food stores) subsidizing lower load factor customers within their class. GSU and the Staff acknowledge the existence of this problem of the "tilt". GSU's witness Mr. Thornton indicated that the Company is currently reviewing the three general service rates and their relationships. Because of the complexity of such a review and the fact that nearly 35,000 customers could be affected by changes in the tariff structure, it would be inappropriate to order GSU to adjust its general service rate structures to correct this problem at this time. However, it would be appropriate for the Commission to order GSU to complete its review and analysis and present a proposal to address these problems when the next step in the phase-in is addressed.

The Company had originally proposed a number of radical changes to its Interruptible Service tariff. After vehement objection by the Gulf States Energy Users Group, GSU made another proposal which would allow existing customers with Interruptible Service contracts to be grandfathered under the current tariff. The Staff approves of the grandfathering of existing customers and accepts the changes in the Interruptible Service tariff proposed by GSU in Exhibit G-389, subject only to the recommendation of the Staff witness that the wording with respect to conditions for interruption be changed to: "at the discretion of the Company as the Company deems necessary for any justifiable reason including, but not limited to, maintaining service to firm loads, avoiding establishment of a new system peak, maintaining service

integrity in the area or other situations when reduction in load on the Company's system is required". This will give GSU the flexibility it seeks while protecting its Interruptible Service customers from arbitrary interruptions.

GSU did not initially propose to change its facilities charge from 2% per month, but two intervenors argued that it should be lowered—Gulf States Energy Users Group to 1.5% and the Department of Energy to 1.65%. Recalculating the facilities charge using the 34% Federal Income Tax rate as suggested by Dr. Goins and the 14% return on equity recommended by the Staff results in a facilities charge of 1.77%, which the Staff finds to be the appropriate rate.

The Department of Energy has proposed that GSU's 60% perpetual ratchet in the Large General Service, Large Power Service, and Large Industrial Service (High Load Factor Service) Schedules be eliminated. GSU's justification for this provision is that customers who exhibit a high degree of cyclical load variance over long periods of time are paying to "reserve" their demand. The Staff recommends that GSU replace the perpetual ratchet in its tariffs with a 60% ratchet based on demand over the previous 119 months or the life of the contract, whichever is shorter.

Finally, GSU has proposed to broaden the applicability of its Employment and Economic Development Service tariff to include research and development and hi-tech jobs as well as manufacturing. The Louisiana Food Store Group has argued that all job creation should be eligible, regardless of the type of industry in which the jobs are being created. However, while this has superficial appeal, it could result in a situation where future growth that would take place anyway would receive the discount, at the expense of all other ratepayers. Furthermore, only by targeting jobs in industries that "export" goods and services to other regions will economic development be advanced. Thus, the Staff recommends the changes as proposed by GSU.

ALTERNATIVE ALLOCATIONS OF BASE RATE INCREASES AMONG CUSTOMER CLASSES

	(1) GSU	(2) GSEUG	(3) DOE	(4) Based on NonFuel	(5) Based on Tot.Rev.	Allocation of Non-Fuel Costs
RES	32.32%	44.39%	40.70%	36.80%	32.84%	43.75%
GEN SER	29.89%	29.42%	30.21%	30.47%	28.97%	30.44%
IND	36.17%	24.37%	27.37%	30.10%	36.10%	23.26%
WATER	0.65%	0.68%	0.70%	0.50%	0.55%	0.61%
LIGHT	0.96%	1.14%	1.02%	2.13%	1.54%	1.94%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

COMPARISON OF RESIDENTIAL
1000 KWH BILLS

Net Rate Increase = $92,000,000
% to Residential = 40.70%

	SUMMER	WINTER	AVERAGE *
PRE-INTERIM BILL			
Base Rate	$47.59	$39.90	
FAC Charge	$16.41	$16.41	
Total	$64.00	$56.31	$61.00
POST-INTERIM BILL			
Base Rate	$54.76	$45.86	
FAC Charge	$16.41	$16.41	
Total	$71.17	$62.27	$67.70
PROPOSED BILL			
Base Rate	$61.05	$61.05	
FAC Charge	$15.09	$15.09	
Total	$76.14	$76.14	$76.14
% Over Pre-Interim **	18.96%	35.21%	24.81%
% Over Post-Interim	6.98%	22.27%	12.46%

* Average is determined by adding the summer rate times .61, plus the winter rate times .39. This is done since 61% of residential kwh are consumer in summer and 31% of residential kwh are consumer in winter.

** The average percentage increase shown here is somewhat greater than that shown in Rochford Exhibit SCR-2 for two reasons. First, here the actual September, 1987, FAC charge of .01641 per kwh is used, rather than the test year average of $.02042 per kwh that was used to develop those tables; therefore, since starting here with a lower beginning amount, the given increase is larger as a percent. Secondly by comparing bills for the 1000 kwh customer, the lower rate for winter usage in excess of 1000 kwh is not reflected, thus making the "average" increase appear greater than it actually is.

X. CONCLUSION

Through the months of testimony there has been a constant thread of disagreement between the company and staff witnesses of most major points. There have, however, been some areas of agreement:

1) The company acted prudently regarding River Bend 1 until the 1978 restart study and decision.

2) There is some basis for recovery for the cancelled River Bend 2.

3) There is some basis for recovery for non-River Bend issues.

However, on most aspects of River Bend 1, especially since the restart, there has been disagreement.

The Staff has made certain conclusions, however, and to summarize, they are:

1) GSU mistakenly opted to restart the River Bend Nuclear Project in 1979. While River Bend's final cost in and of itself does not indicate imprudence, it has been shown that the Company's planning process was flawed, assumptions employed were flawed, and the end result was an error.

2) The Staff's analysis has shown that GSU's load forecasting capability in 1978-1979 was below average with respect to industry standards. Consequently, the company produced incorrect load forecasts which engendered a sense of urgency for additional capacity in 1985-1986. This false sense of urgency may have contributed to the company's insufficient analysis of the economic viability of the project.

3) The company did not perform significant analyses of the economic viability of completing or can-

> celling the project. Those analyses which were prepared emanated from planning models with known errors, and incorporated planning assumptions which were known to be wrong. Had the company employed reasonable planning assumptions and utilized reasonable planning models, the inescapable conclusion would have been to cancel River Bend.

These findings and conclusions are consistent with imprudence.

There has been a recommended disallowance. However, certain mitigating factors were taken into account in reaching that recommendation. The Commission with wide discretion and authority may wish to consider further mitigation or structure of a plan which is fair to both ratepayers and the company, or conversely, to reject the mitigation proposed by the staff. Whichever path the Commission decides to pursue, there is certainly basis in this case for innovation. The Commission has been faced with difficult circumstances involving nuclear plants before. The scope of the case as well as the diametric disagreement on River Bend calls upon the commission to approach this difficult challenge with a full understanding of the issues and a judicious aproach to the matter.

Respectfully submitted:

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XI. SUMMARY OF STAFF RECOMMENDATIONS

Imprudence Disallowance	$ 1.4 Billion
(La. Retail Portion)	$680 Million
Total Rate Increase (RBI and Non-RB)	$ 92 Million
Less Interim Increase	$ 57 Million
Net Increase	$ 35 Million
Procedure for Rate Increase	10 year Phase-In Annual Evidentiary Hearings
Total Deferrals under Phase-In	$537 Million
Rate of Return	12.10%
1st Year Increase on 1000 KWH	6.98%
1st Year Increase on 1000 KWH	$4.87

(1st year, non-fuel basis 5.12% = $3.64)

FIRST YEAR RATE INCREASES
$ MILLION

	Company	LPSC Staff
First Year Revenue Increase	$195	$ 92
Non Fuel Base Revenues		
Non River Bend	$ 24	$ 13
River Bend 2	$ 16	$ 10
River Bend 1	$155	$ 77
Shift To Base Revenues From Fuel	$ 6	$ 6
Total Non Fuel Base Revenue Increase	$201	$106
Fuel Revenues		
River Bend 1 Fuel Savings	*	$ (8)
Shift Of Demand Charges From Fuel To Base	$ (6)	$ (6)
Total Fuel Revenue Decrease	$ (6)	$(14)

LOUISIANA PUBLIC SERVICE COMMISSION

Docket No. U-17282

GULF STATES UTILITIES COMPANY, EX PARTE.

IN RE: PROPOSED REVISION OF ITS ELECTRIC RATES AND CHARGES WITHIN THE STATE OF LOUISIANA

DOCKET NO. U-17282
PROCEDURAL CHRONOLOGY

JULY 1986

GSU FILES RIVER BEND I CASE

REQUEST FOR INTERIM RATE RELIEF BY NOVEMBER 1986

AUGUST-NOVEMBER 1986

INTERIM HEARINGS

DECEMBER 1986

LPSC DENIES INTERIM RATE RELIEF

JANUARY 1987

GSU APPEALS LPSC DECEMBER ORDER

MARCH 1987

COURT REMANDS INTERIM DECISION TO LPSC FOR RECONSIDERATION

LPSC GRANTS \$57 MILLION INTERIM INCREASE (EXPIRES NOVEMBER 1987)

APRIL-OCTOBER 1987

PRUDENCE AND CASE-IN-CHIEF HEARINGS

NOVEMBER 1987

LPSC PRUDENCE AND CASE-IN-CHIEF DECISION DUE

ISSUES BEFORE THE COMMISSION

1. APPROPRIATE RATE OF RETURN
2. NON-RIVER BEND REVENUE REQUIREMENTS
3. RIVER BEND 2 (CANCELLED PROJECT)
4. RIVER BEND 1
   a. PRUDENCE
   b. DISALLOWANCE OF COSTS IMPRUDENTLY INCURRED
   c. PHASE-IN PLAN
5. ALLOCATION OF RATE INCREASE TO CUSTOMER CLASSES

COMPONENTS OF RATEMAKING

1. RATE BASE (INVESTMENT)
2. ALLOWED RATE OF RETURN (COST OF MONEY)
3. OPERATING INCOME (REVENUES-EXPENSES)
4. REQUIRED RATE INCREASE (REVENUES)

RATE BASE

DEFINITION

INVESTMENT UPON WHICH UTILITY IS ALLOWED TO EARN A RATE OF RETURN

COMPONENTS OF RATE BASE

PLANT IN SERVICE LESS ACCUMULATED DEPRECIATION

PLANT HELD FOR FUTURE USE

UNAMORTIZED INVESTMENT IN CANCELLED PROJECTS

WORKING CAPITAL

LESS ACCUMULATED DEFERRED INCOME TAXES

MISCELLANEOUS OTHER ITEMS

(NOTE: DO NOT PUT ÖN SLIDE)
POWER STATIONS, TRANSMISSION AND DISTRIBUTION LINES AND EQUIPMENT, BUILDINGS AND OTHER ASSETS PROVIDING UTILITY SERVICE

ALLOWED RATE OF RETURN

DEFINITION

Percentage Cost Capital For All Funds Invested In Utility Operations

COMPONENTS OF RATE OF RETURN

Common Equity	(Cost X % In Capital Structure) =	X %
Long Term Debt	(Cost X % In Capital Structure) =	Y %
Preferred Stock	(Cost X % In Capital Structure) =	Z %

Allowed Rate Of Return X + Y + Z %

OPERATING INCOME

DEFINITION

UTILITY REVENUES LESS UTILITY EXPENSES

TWO TYPES

1. EARNED (ACTUAL) OPERATING INCOME—BEFORE RATE INCREASE
2. ALLOWED OPERATING INCOME—ALLOWED AFTER RATE INCREASE

COMPONENTS

REVENUES:

NON FUEL (BASE)
FUEL RECOVERY
OTHER

EXPENSES:

FUEL AND PURCHASED POWER
OPERATION AND MAINTENANCE
DEPRECIATION AND AMORTIZATION
TAXES OTHER THAN INCOME TAXES
INCOME TAXES

RELATIONSHIP OF RATEMAKING COMPONENTS

REGULATORY FORMULA

RATE BASE (INVESTMENT)

X

ALLOWED RATE OF RETURN (COST OF MONEY)

ALLOWED OPERATING INCOME (REVENUES-EXPENSES)

REQUIRED RATE INCREASE

REGULATORY FORMULA

ALLOWED OPERATING INCOME

— (MINUS)

EARNED (ACTUAL) OPERATING INCOME

(EQUALS)

OPERATING INCOME DEFICIENCY

(PLUS)

ADDITIONAL TAXES DUE TO RATE INCREASE — (EQUALS)

REQUIRED RATE INCREASE (REVENUES)

RATE OF RETURN

	Company	LPSC Staff
Total Rate Of Return	12.60%	12.10%
Cost By Component		
Common Equity	15.25%	14.00%
Long Term Debt	10.78%	10.78%
Preferred Stock	11.05%	11.05%
Capital Structure		
Common Equity	40.0 %	40.0 %
Long Term Debt	48.0 %	48.0 %
Preferred Stock	12.0 %	12.0 %
	100.0 %	100.0 %

NON-RIVER BEND

	Company	LPSC Staff
Rate Base	$832 Million	$832 Million
Rate Of Return		
— Overall	12.60%	12.10%
— Equity	15.25%	14.00%
Actual Operating Income	$ 90.6 Million	$ 92.5 Million
Required Rate Increase	$ 24.4 Million	$ 13.4 Million

RIVER BEND 2

Cancelled In 1984
Investment (La Retail) $62.1 Million
Recovery Options

	Company	Staff LPSC
Recovery Period (Amortization)	10 Years	40 Years
Rate Base Treatment (Unamortized Portion)	Yes	Yes
1st Year Revenue Increase	$15.9 Million	$10.0 Million

RIVER BEND 1

PRUDENCE

DISALLOWANCE OF COSTS IMPRUDENTLY INCURRED

PHASE IN PLAN

PRUDENCE DEFINITION

PRUDENT DECISIONS ARE THOSE WHICH REASONABLE INDIVIDUALS WOULD, OR COULD, HAVE MADE BASED ON THE FACTS AS KNOWN OR WHICH WERE REASONABLY KNOWABLE AT THE TIME

—GSU WITNESS D.A. SMITH

SIGNIFICANCE OF PRUDENCE

1. ONLY THOSE COSTS WHICH ARE *PRUDENTLY* INCURRED SHOULD BE ALLOWED INTO RATES
2. *IMPRUDENT* COSTS ARE BORNE BY UTILITY INVESTORS

CHRONOLOGY OF RIVER BEND 1

INITIATION OF PROJECT	1971
HIRE ARCHITECT ENGINEER	1973
SUSPENSION OF PROJECT	1977
RESTART STUDY	1978
REACTIVATION OF SITE CONSTRUCTION	1979
COMPLETION	1986

PRUDENCE ISSUE

WAS GSU *PRUDENT* IN ITS EARLY 1979 *DECISION* TO REACTIVATE AND COMPLETE CONSTRUCTION OF THE RIVER BEND 1 NUCLEAR UNIT?

STAFF PRUDENCE INVESTIGATION

1. REVIEW OF GSU STUDIES UTILIZED IN DECISION
2. INTERVEWS OF KEY PERSONNEL IN PLANNING PROCESS
3. INDEPENDENT ANALYSIS
4. FILING OF TESTIMONY
5. PRESENTATION OF STAFF WITNESSES
6. CROSS-EXAMINATION OF GSU WITNESSES

PRUDENCE INVESTIGATION SCORECARD

—WITNESSES

—DAYS OF HEARINGS

—PAGES OF TESTIMONY

—PAGES OF TRANSCRIPT

—PAGES OF DOCUMENTS REVIEWED

—HEARING EXHIBITS

—INDEPENDENT PERSONAL INTERVIEWS

THE UTILITY PLANNING PROCESS

PRUDENCE INVESTIGATION REVIEW OF UTILITY PLANNING PROCESS

LOAD FORECASTING

1. IDENTITY NEED FOR NEW CAPACITY

GENERATION EXPANSION

2. IDENTIFY CAPACITY OPTIONS

ECONOMIC AND FINANCIAL

3. EVALUATE CAPACITY OPTIONS

DECISION

4. MANAGEMENT SELECTION OF CAPACITY OPTION

CONSTRUCTION

5. SCHEDULE AND COSTS

FINDINGS
PRUDENCE INVESTIGATION

GENERATION EXPANSION OPTIONS AVAILABLE AT RESTART

1. *COMPLETE* RIVER BEND 1 AS *NUCLEAR*
2. *CANCEL* RIVER BEND 1, *REPLACE* WITH *SCRUBBED HARD COAL*
3. *CANCEL* RIVER BEND-1, ACCELERATE CONSTRUCTION OF *NELSON 5 COAL*
4. *CANCEL* RIVER BEND 1, REPLACE WITH SCRUBBED LIGNITE COAL
5. *CANCEL* RIVER BEND 1, *REPLACE* WITH *CONSERVATION*

FINDINGS

PRUDENCE INVESTIGATION

GSU ECONOMIC AND FINANCIAL STUDIES

1. MAJOR GSU DECISION ANALYSIS PROBLEMS
2. ERRONEOUS RESULTS

PROBLEMS WITH GSU RESTART PERIOD STUDIES

—DIRECT COST ESTIMATES TOO LOW

—CONSTRUCTION SCHEDULE TOO OPTIMISTIC

—NUCLEAR CAPACITY FACTOR ASSUMPTIONS UNREALISTIC

—LIGNITE UNIT NOT PROPERLY REVIEWED AS ALTERNATIVE TO RIVER BEND

—AFUDC CARRYING COSTS INCLUDED IN COST ESTIMATES TOO LOW

—TAX BENEFITS OF CANCELLATION UNDERSTATED

—REFLECTED IMMEDIATE 40% PARTICIPATION BY OTHER UTILITIES (GSU HAD NO CONTRACTS)

—FAILED TO PROPERLY UTILIZE STANDARD INDUSTRY EVALUATION TECHNIQUES

—OTHER METHODOLOGICAL AND COMPUTER PROGRAMMING ERRORS

ERRONEOUS RESULTS IN GSU RESTART PERIOD STUDIES

—ERRONEOUS DETERMINATION OF TAX BENEFITS RESULTING FROM CANCELLATION

—EXTREMELY LIMITED REVIEW OF OPTIONS

—LIGNITE OPTION INADEQUATELY AND IMPROPERLY REVIEWED

—NUCLEAR DETERMINED TO BE MOST ATTRACTIVE OPTION

SUMMARY OF FINDINGS

PRUDENCE INVESTIGATION

I. GSU MANAGEMENT ANALYSIS SUPPORTING 1979 RESTART WAS:

1. NOT CONCLUSIVE
2. NOT RELIABLE
3. NOT COMPREHENSIVE
4. DID NOT CONSIDER SIGNIFICANT FACTS WHICH WERE KNOWN OR KNOWABLE AT THE TIME OF RESTART

II. GSU ANALYSIS WAS INADEQUATE AND DEFICIENT

III. GSU STUDIES ALONE WERE INSUFFICIENT AND INADEQUATE FOR STAFF DETERMINATION OF PRUDENCE

IV. GSU ATTEMPTED TO SELL RIVER BEND 1 COMPONENTS TO FOREIGN COUNTRIES PRIOR TO SITE CONSTRUCTION REACTIVATION

INDEPENDENT STAFF ANALYSIS

PRUDENCE INVESTIGATION

NECESSARY TO RECONSTRUCT PLANNING STUDIES UTILIZING FACTS KNOWN OR KNOWABLE AT THE TIME

UTILIZED BASIC ECONOMIC LOAD FORECASTING TECHNIQUES COMPARABLE TO THOSE USED WIDELY BY UTILITIES AT THAT TIME

UTILIZED STANDARD UTILITY INDUSTRY ECONOMIC ANALYSIS METHODOLOGIES

INVESTIGATED LIGNITE DEPOSIT AVAILABILITY AND COST TRENDS

COMPARED AND EVALUATED LIGNITE UNIT OPTION TO RIVER BEND 1 NUCLEAR UNIT COMPLETION

FINDINGS OF INDEPENDENT STAFF ANALYSIS

PRUDENCE INVESTIGATION

GSU SPECIAL 1978 LOAD FORECAST WAS OVERSTATED BY 850 MW FOR 1985

SUFFICIENT LIGNITE RESERVES IN AND NEAR GSU SERVICE TERRITORY ASSUMING NECESSITY OF NEW CAPACITY BY 1985

GSU DATA AND ASSUMPTIONS INDICATED 5-6 YEAR COMPLETION PERIOD FOR LIGNITE CAPACITY

AT THE TIME OF RESTART LIGNITE UNIT REPRESENTED SAVINGS OF $60 MILLION (LEVELIZED) PER YEAR COMPARED TO RIVER BEND 1 COMPLETION

STAFF CONCLUSIONS OF
PRUDENCE INVESTIGATION

GULF STATES WAS *IMPRUDENT* IN EARLY 1979 WHEN THEY REACTIVATED RIVER BEND 1 NUCLEAR UNIT CONSTRUCTION

GSU *DID NOT NEED THE ADDITIONAL CAPACITY* REPRESENTED BY RIVER BEND 1 OR ANY REPLACEMENT OPTION

GSU *DID NOT PROPERLY OR THOROUGHLY REVIEW* AVAILABLE GENERATION EXPANSION OPTIONS PRIOR TO RESTARTING RIVER BEND 1

GULF STATES *FAILED THE PRUDENT STANDARD OF REASONABLENESS* WHICH REQUIRES DUE CONSIDERATION OF FACTS REASONABLY KNOWN OR KNOWABLE AT THE TIME OF DECISION, GIVEN THE CIRCUMSTANCES IN EXISTENCE AT THAT TIME.

RIVER BEND 1

IMPRUDENCE DISALLOWANCE

IMPRUDENTLY INCURRED COSTS SHOULD NOT BE RECOVERED IN RATES CHARGED TO RATEPAYERS

IMPRUDENTLY INCURRED COSTS SHOULD BE DISALLOWED

RIVER BEND 1

IMPRUDENCE DISALLOWANCE

A DISALLOWANCE RESULTS IN:

1. EXCLUSION FROM RATE BASE
2. NO DEPRECIATION ON EXCLUDED COSTS
3. LOWER RATE INCREASES
4. WRITEOFF OF DISALLOWANCE AGAINST EARNINGS

DETERMINATION OF IMPRUDENCE DISALLOWANCE

MAXIMUM DISALLOWANCE

EQUAL TO DIFFERENCE BETWEEN WHAT RATEPAYERS WOULD PAY FOR RIVER BEND 1 COMPARED TO A LIGNITE UNIT (IF IT HAD BEEN CONSTRUCTED) PLUS RIVER BEND 1 SUNK COSTS (AT TIME OF RESTART)

MITIGATING FACTORS

CURRENT FINANCIAL HEALTH OF GSU

FUTURE FINANCIAL HEALTH OF GSU

MITIGATED DISALLOWANCE

EQUAL TO THE MAXIMUM DISALLOWANCE MITIGATED BY THE CURRENT AND FUTURE FINANCIAL HEALTH OF GSU

STAFF REVIEW OF MITIGATING FACTORS

1. CURRENT FINANCIAL CONDITION PRECARIOUS

   A. SUSPENDED COMMON DIVIDENDS

   B. DEFERRED PREFERRED DIVIDENDS

   C. TRADITIONAL FINANCIAL MARKETS UNAVAILABLE

2. FUTURE FINANCIAL CONDITION ALSO PRECARIOUS

MITIGATED RIVER BEND 1 IMPRUDENCE DISALLOWANCE

$1.4 BILLION (TOTAL COMPANY)

$680 MILLION (LOUISIANA RETAIL)

PHASE IN PLANS

WHY IS A PHASE IN NECESSARY?

TO SPREAD OUT THE RATE INCREASES NECESSARY TO SUPPORT RIVER BEND 1 COSTS TO REDUCE INITIAL RATE SHOCKS.

HOW DOES A PHASE-IN WORK?

1. RATES ARE INCREASED IN STEPS OVER A PERIOD OF YEARS TO REACH THE POINT WHERE THE UTILITY IS RECOVERING ALL OF ITS ALLOWED COSTS
2. SOME OF THE REVENUES TO WHICH THE UTILITY IS ENTITLED IN THE FIRST YEARS OF A PHASE IN PLAN ARE *TEMPORARILY DEFERRED FOR FUTURE RECOVERY*. THIS IS CALLED THE DEFERRAL PERIOD.
3. RATES THEN INCREASE IN THE LATER YEARS TO PAY THE UTILITY BACK FOR THE AMOUNTS DEFERRED IN EARLIER YEARS. THIS IS CALLED THE RECOVERY PERIOD.
4. AT THE END OF THE PHASE IN PERIOD, RATE LEVELS ARE THE SAME AS THEY WOULD HAVE BEEN WITHOUT PHASE IN.

PHASE IN OF PRUDENT RIVER BEND 1 COSTS

PHASE IN OPTIONS ARE LIMITED BY ACCOUNTING REGULATIONS

ACCOUNTING REGULATIONS (SFAS 92) REQUIRE:

1. *THAT A FORMAL PLAN* MUST BE ESTABLISHED BY THE COMMISSION

2. THAT *THE TIMING OF RECOVERY* FOR ALL ALLOWABLE COSTS DEFERRED UNDER THE PLAN MUST BE SPECIFIED

3. THAT THE *MAXIMUM DURATION* OF THE PLAN IS *10 YEARS*

4. THAT *RATE INCREASE* UNDER THE PLAN MUST BE IN *DECREASING OR EQUAL PERCENTAGES* COMPARED TO THE PRIOR YEAR

FAILURE TO MEET ANY OF THE ACCOUNTING REQUIREMENTS WOULD *REQUIRE MAJOR WRITE-OFFS* (IN ADDITION TO THE DISALLOWANCE WRITEOFF) AND COULD RESULT IN *INABILITY OF GSU TO CONTINUE AS A GOING CONCERN*

COMPARISON OF RIVER BEND 1
ONLY PHASE-IN PLANS

	Company	LPSC Staff
Duration Of Plan	8 Years	10 Years
Deferral Period	3 Years	4 Years
Recovery Period	5 Years	6 Years
No. Years Of Increases	4 Years	6 Years
Disallowance—Total Co.	None	$1.4 Billion
—La Retail	None	$680 Million
Total Deferrals	$420 Million	$537 Million
Last Year Of New External Financing	1988	1989
Restoration Of Preferred Dividends	1988	1988-1989
Restoration Of Common Dividend	1989	1991

RIVER BEND 1 ONLY PHASE IN PLANS
ANNUAL RATE INCREASES

	Company	LPSC Staff
Year 1	$154	$77
Year 2	127	50
Year 3	78	50
Year 4	0	50
Year 5	0	50
Year 6	0	22
Years 7-10	0	0

FIRST YEAR RATE INCREASES
$ MILLION

	Company	LPSC Staff
First Year Revenue Increase	$195	$ 92
Non Fuel Base Revenues		
Non River Bend	$ 24	$ 13
River Bend 2	$ 16	$ 10
River Bend 1	$155	$ 77
Shift To Base Revenues From Fuel	$ 6	$ 6
Total Non Fuel Base Revenue Increase	$201	$106
Fuel Revenues		
River Bend 1 Fuel Savings	*	$ (8)
Shift Of Demand Charges From Fuel To Base	$ (6)	$ (6)
Total Fuel Revenue Decrease	$ (6)	$(14)

INTERCLASS SUBSIDIES

A CLASS IS *PROVIDING* A SUBSIDY IF TOTAL NON FUEL REVENUES PAID BY THE CLASS IS GREATER THAN THEIR NON FUEL COSTS.

A CLASS IS *RECEIVING* A SUBSIDY IF TOTAL NON FUEL REVENUES PAID BY THE CLASS IS LESS THAN THEIR NON FUEL COSTS

ALLOCATION OF TOTAL NON FUEL COSTS USING AVERAGE AND EXCESS METHODOLOGY

RESIDENTIAL CLASS	43.75%
GENERAL SERVICE CLASSES	30.44%
INDUSTRIAL CLASSES	23.26%
OTHER (WATER AND LIGHTING)	2.55%
TOTAL	100.00%

EXAMPLE OF CURRENT SUBSIDY

	Percentage Of Non Fuel Costs	Percentage Of Non Fuel Revenues
Residential	43.75%	36.80%
Commercial	30.44%	30.47%
Industrial	23.26%	30.10%
Other	2.55%	2.63%
Total	100.00%	100.00%

RECOMMENDED ALLOCATION OF RATE INCREASE

RESIDENTIAL	40.70%
COMMERCIAL	30.21%
INDUSTRIAL	27.37%
OTHER	1.72%

COMPARISON OF RESIDENTIAL
1000 KWH BILLS
(INCREASE ALLOCATED
ACCORDING TO STAFF PROPOSAL)

CURRENT BILL	
BASE RATE	$54.76
FUEL CHARGE	$16.41
TOTAL	$71.17
PROPOSED BILL	
BASE RATE	$61.05
FUEL CHARGE	$15.09
TOTAL	$76.14
PERCENT INCREASE	6.98%

COMPARISON OF RESIDENTIAL
1000 KWH BILLS
(INCREASE ALLOCATED ON NON FUEL REVENUES)

CURRENT BILL	
BASE RATE	$54.76
FUEL CHARGE	$16.41
TOTAL	$71.17
PROPOSED BILL	
BASE RATE	$59.72
FUEL CHARGE	$15.09
TOTAL	$74.81
PERCENT INCREASE	5.12%

APPENDIX I

AN OPEN LETTER FROM LOUIS LAMBERT TO ALL G.S.U. & DIXIE ELECTRIC CUSTOMERS

LOUISIANA PUBLIC SERVICE COMMISSION

[SEAL]

LOUIS LAMBERT
Commissioner

Dear Friends:

I need your help!

As you may have heard, Gulf States Utilities, which provides electricity from Baton Rouge through Lake Charles and on into Texas, has applied for a rate increase in the amount of approximately $450 million annually or equivalent to a 40 percent increase in your electric bill.

The Public Service Commission must decide the case by the end of September.

The evidence preliminarily submitted during public hearings in response to my questions and requests for information tentatively indicates that GSU has spent more than $4 billion building the Riverbend Nuclear Plant which is the 2nd most expensive built to date in the United States. The current evidence clearly illustrates that a coal plant could have been built for roughly one-fifth of that amount.

Dixie Electric customers must be equally concerned because Dixie and the electric cooperatives in Louisiana have contracted to purchase a 30 per cent ownership interest in the Riverbend Nuclear Plant which will soon mean a substantial increase in the bills of Dixie customers and for that matter, all of the state's electric co-ops if the GSU rate increase were to go into effect.

To compound the potential burden on these ratepayers and perhaps even drive industrial customers off the GSU

system (which consumes nearly 60 per cent of the system's power), the construction of the Riverbend Nuclear Plant coupled with locked in power contracts with other utilities will result in the GSU system having more than twice as much capacity as is standard in the American electric utility industry.

I am firmly convinced that the utility failed to exercise sound judgment in these matters, particularly in view of the fact that since 1978, I have consistently requested that GSU abandon the nuclear project altogether and build a coal plant instead.

I am further convinced that a rate increase of this magnitude will seriously disrupt, if not destroy, the economy in this area and cause an unbearable economic hardship on the residential customers, particularly those with fixed and modest incomes.

If my position is to prevail and you share my views concerning this rate increase, I need your help. Please take the time to write to me and to the other commissioners. It is important to give us the benefit of your thoughts regarding the proposed 40 per cent rate increase in your electric bills.

Sincerely yours,

/s/ Louis J. Lambert, Jr.
LOUIS J. LAMBERT, JR.
Commissioner
District 3

In response to requests from numerous GSU and Dixie customers, I have listed below the names and addresses of all members of the Public Service Commission. Please write each Commissioner and let them know your views.

District 1

John F. Schwegmann
5300 Old Gentilly Road
New Orleans, LA 70126

District 2

George J. Ackel
7129 Jefferson Hwy.
Harahan, LA 70123

District 3

Louis J. Lambert, Jr.
P.O. Box 1026
Gonzales, LA 70707-1026

District 4

Thomas Powell
141 S. Sixth St.
Eunice, LA 70535

District 5

Don Owen
1525 Fairfield
Shreveport, LA 71161

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